

TOSHIBA

FILE NO. 333-9801
SUPPLEMENT

SERVICE MANUAL

3LCD DATA PROJECTOR
TLP510A, TLP511A
TLP510Z, TLP511Z

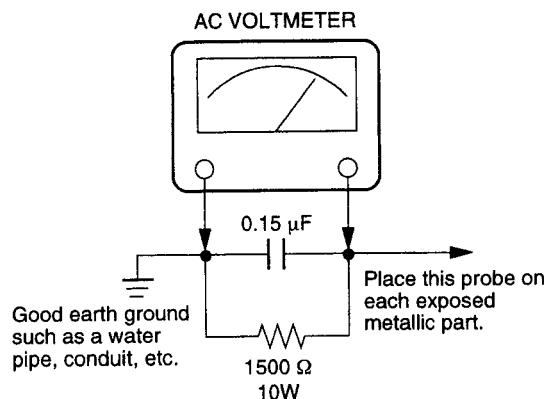
— SUMMARY —

This service manual provides for the additional technical information of the service manuals
File No. 330-9706 for TLP510U, TLP511U, TLP510E, TLP511E.
For other technical information, please refer to the original service manuals.

SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this projector. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation Transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.
2. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
3. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as terminals, screwheads, metal overlays, control shafts etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V (TLP510A, TLP511A)/240V (TLP510Z, TLP511Z) AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 5000Ω per volt or more sensitivity in the following manner: Connect a 1500Ω 10W resistor, paralleled by a $0.15\ \mu F$, AC type capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500Ω resistor and $0.15\ \mu F$ capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed $5.25V(rms)$. This corresponds to $3.5\ mA(AC)$. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

ULTRAVIOLET DANGER IN SERVICE MODE

Eye damage may result from directly viewing the light produced by the lamp used in this product. Always turn off lamp before opening this cover. Ultraviolet radiation eye protection required during servicing.

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- For descriptions of other circuits except for drive circuit, refer to the technical training manual (File No. 336-9707) for TLP510U, TLP511U, TLP510E, TLP511E.
- For adjustments of camera section, refer to the service manual (File No. 330-9706) for TLP510U, TLP511U, TLP510E, TLP511E.

SECTION 2 SERVICING DIAGRAMS

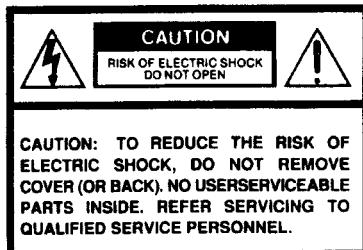
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- For the circuit diagrams and PC boards not appeared in this manual (Fan control, inverter, camera, etc.), refer to the service manual (File No. 330-9706) for TLP510U, TLP511U, TLP510E, TLP511E.

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SAFETY PRECAUTIONS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

<TLP510A, TLP511A>

FCC Radio Frequency Interference Statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiates radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING: Changes or modifications made to this equipment, not expressly approved by Toshiba, or parties authorized by Toshiba, could void the user's authority to operate the equipment.

Notice: This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

IMPORTANT PRECAUTIONS

Save Original Packing Materials

The original shipping carton and packing materials will come in handy if you ever have to ship your LCD projector. For maximum protection, repack the set as it was originally packed at the factory.

Avoid Volatile Liquid

Do not use volatile liquids, such as an insect spray, near the unit.
Do not leave rubber or plastic products touching the unit for a long time. They will mar the finish.

Moisture Condensation

Never operate this unit immediately after moving it from a cold location to a warm location. When the unit is exposed to such a change in temperature, moisture may condense on the crucial internal parts. To prevent the unit from possible damage, do not use the unit for at least 2 hours when there is an extreme or sudden change in temperature.

In the spaces provided below, record the Model and Serial No. located at the rear of your LCD projector.

Model No. _____ Serial No. _____

Retain this information for future reference.

IMPORTANT SAFETY INSTRUCTIONS

CAUTION: PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS GIVEN IN THIS OWNER'S MANUAL AND THOSE MARKED ON THE UNIT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

This set has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this unit will protect you if you observe the following procedures for installation, use and servicing. This unit is fully transistorized and does not contain any parts that can be repaired by the user.
DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

1. Read owner's manual

After unpacking this product, read the owner's manual carefully, and follow all the operating and other instructions.



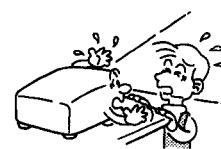
2. Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.



3. Source of Light

Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyes or sight.



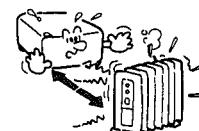
4. Ventilation

Openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.



5. Heat

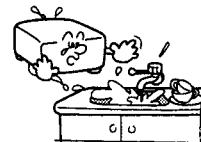
The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.



IMPORTANT SAFETY INSTRUCTIONS

6. Water and Moisture

Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool and the like.



7. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.



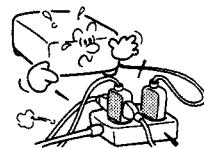
8. Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.



9. Overloading

Do not overload wall outlets; extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.



10. Lightning

For added protection for this product during storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.

This will prevent damage to the product due to lightning and power-line surges.



11. Object and Liquid Entry

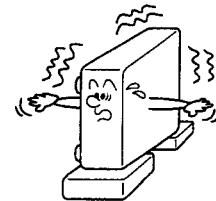
Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.



12. Do not place the product vertically

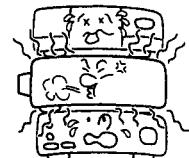
Do not use the product in the upright position to project the pictures at the ceiling, or any other vertical positions.

It may fall down and dangerous.

**13. Stack inhibited**

Do not stack other equipment on this product or do not place this product on the other equipment.

Top and bottom plates of this product develops heat and may give some undesirable damage to other unit.

**14. Attachments**

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

15. Accessories

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

**16. Damage Requiring Service**

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a) When the power-supply cord or plug is damaged.
- b) If liquid has been spilled, or objects have fallen into the product.
- c) If the product has been exposed to rain or water.
- d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e) If the product has been dropped or damaged in any way.
- f) When the product exhibits a distinct change in performance - this indicates a need for service.

17. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



18. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

(Replacement of the lamp only should be made by users.)

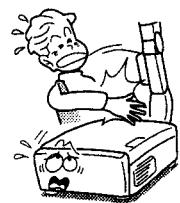
19. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.



20. Do not get your hands between the camera arm and the main unit when setting the camera arm back in its original position.

To avoid injury, be careful not to get your hands caught when setting the camera arm back in its original position. Families with children should be particularly careful.



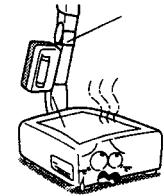
21. Do not carry by the camera arm.

Do not carry the projector by the camera arm. Doing so can result in damage or injury.



22. Do not leave documents on the unit for long periods of time while using the document imaging function.

Do not leave texts, papers or other documents for projection on the unit for long periods of time. The heat could erase the letters on a thermal paper.

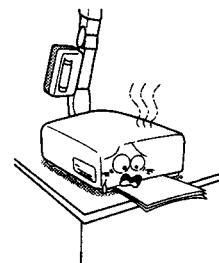


23. Before replacing the fluorescent light, turn off the power and wait at least one hour for the fluorescent light to cool down.

The fluorescent light gets hot, so handle it with care. Failure to do so may result in burns or other injuries.

24. Do not leave documents in the bottom of the projector.

Documents can block the air intake holes, making the inside of the projector heat up and causing breakdowns.



25. Do not move the projector while the arm is still erect.

Always store the arm back in position when moving the projector. Otherwise injury or damage may result.



26. Camera section is not locked. Do not hold the camera cover and camera unit when carrying out, etc.

Danger such as dropping, or cause of failure and injury may result.



SECTION 1

GENERAL DESCRIPTIONS/ ADJUSTMENT PROCEDURES

1. DRIVE CIRCUIT

The drive circuit consists of a gamma process IC (Q701), alternation, sample and hold IC (Q401, Q402, Q501, Q502, Q601, Q602), timing buffer (Q901, Q902), 8 bit DA (Q900) and a power supply (Q950, Q951, Q952).

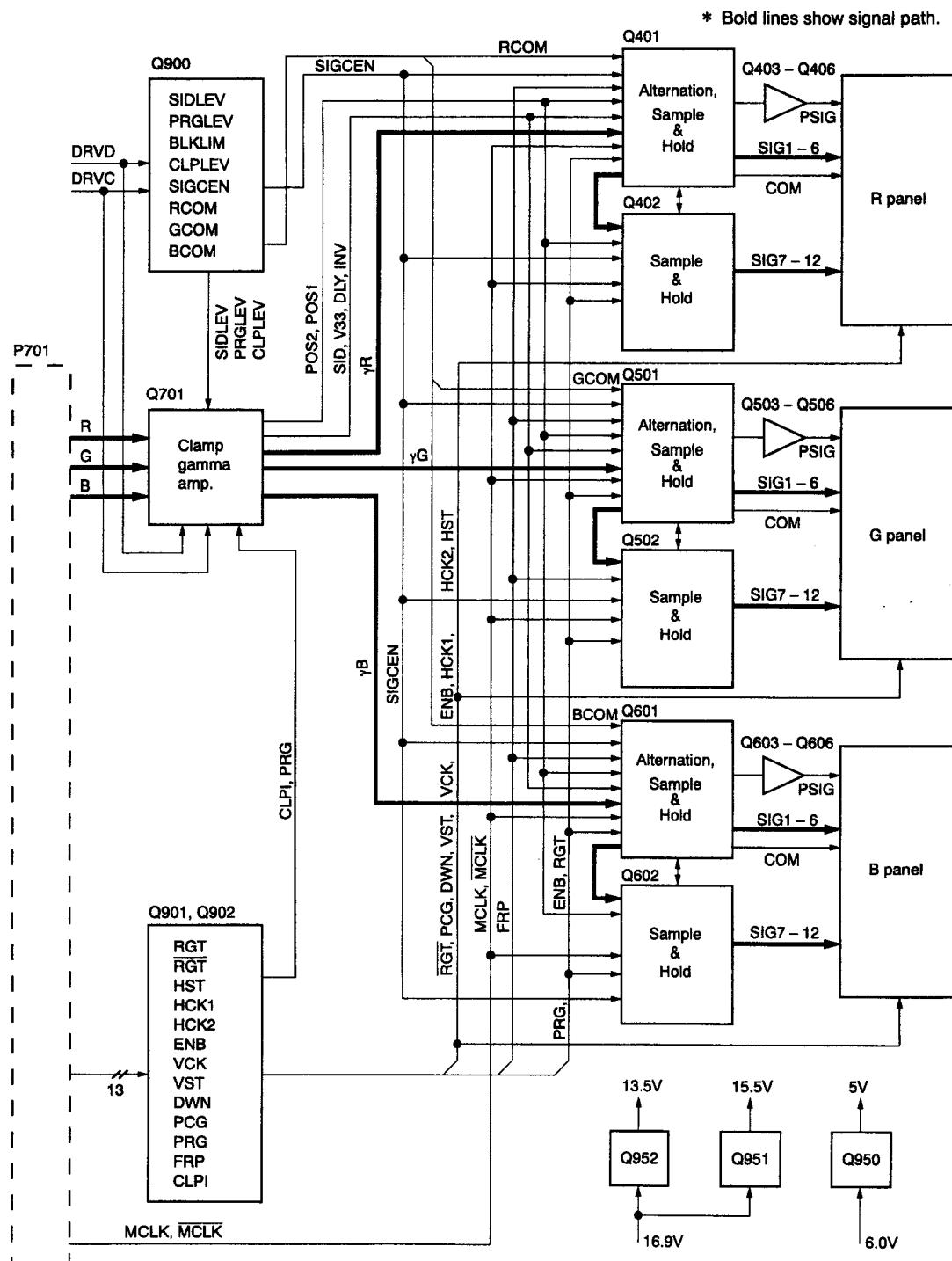


Fig. 1-1-1 Block diagram of drive circuit

1-1. Gamma Process IC CXA2111R (Q701)

Fig. 1-1-2 shows an internal block diagram of the gamma process IC Q701 CXA2111R.

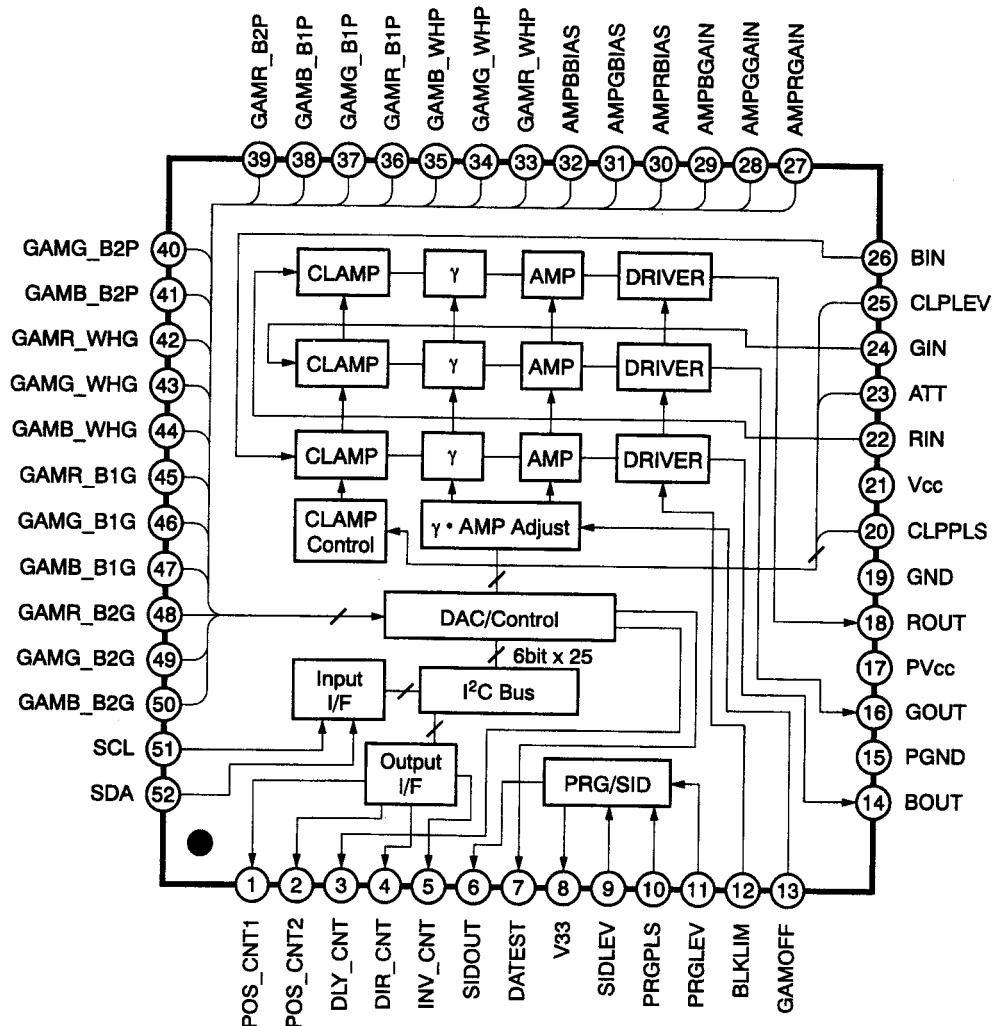


Fig. 1-1-2 Block diagram of Q701 CXA2111R

Q701 CXA2111R has functions such as clamping for each R, G, B signal, gamma, amplifier, etc.

The IC features:

- Gamma: R, G, B separate adjustment type and allows adjustments of gain and position at 3 points (one white side, two black side).
- Amplifier: Separate adjustment for R, G, B gains and bias voltages.
- f response: 100 MHz
- Through rate: 375
- The adjustments are carried out through I²C.

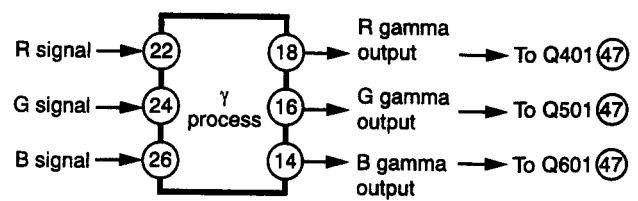


Fig. 1-1-3 Signal path

1-2. Alternation, Sample & Hold Process

IC CXA2112R (Q401, Q402, Q501, Q502, Q601, Q602)

Fig. 1-1-4 shows an internal block diagram of the IC.

The CXA2112R has functions such as a line inversion amplifier, demultiplexer (6 output), output buffers, timing generator, etc.

Features are:

- High speed signal process for XGA signal (dot clock is 100 MHz).
- Lower output deviation due to an output offset cancel circuit built-in.

- No group delay in inverting and non inverting.
- Built-in timing generator with ECL configuration.
- Dot clock phase adjustment function.
- Built-in VCOM voltage generation circuit.
- Built-in precharge pulse waveform generation circuit.

A video signal entered pin 47 of Q401 (Q501, Q601) is amplified by about 2.7 times with an INVERT-AMP and developed from pin 46. The output is fed to pin 45 of Q401 and pin 45 of Q402 (Q502, Q602) and developed in 6 layers by each IC.

Q401 (Q501, Q601) handles SIG1 – SIG6 and Q402 (Q502, Q602) handles SIG7 – SIG12.

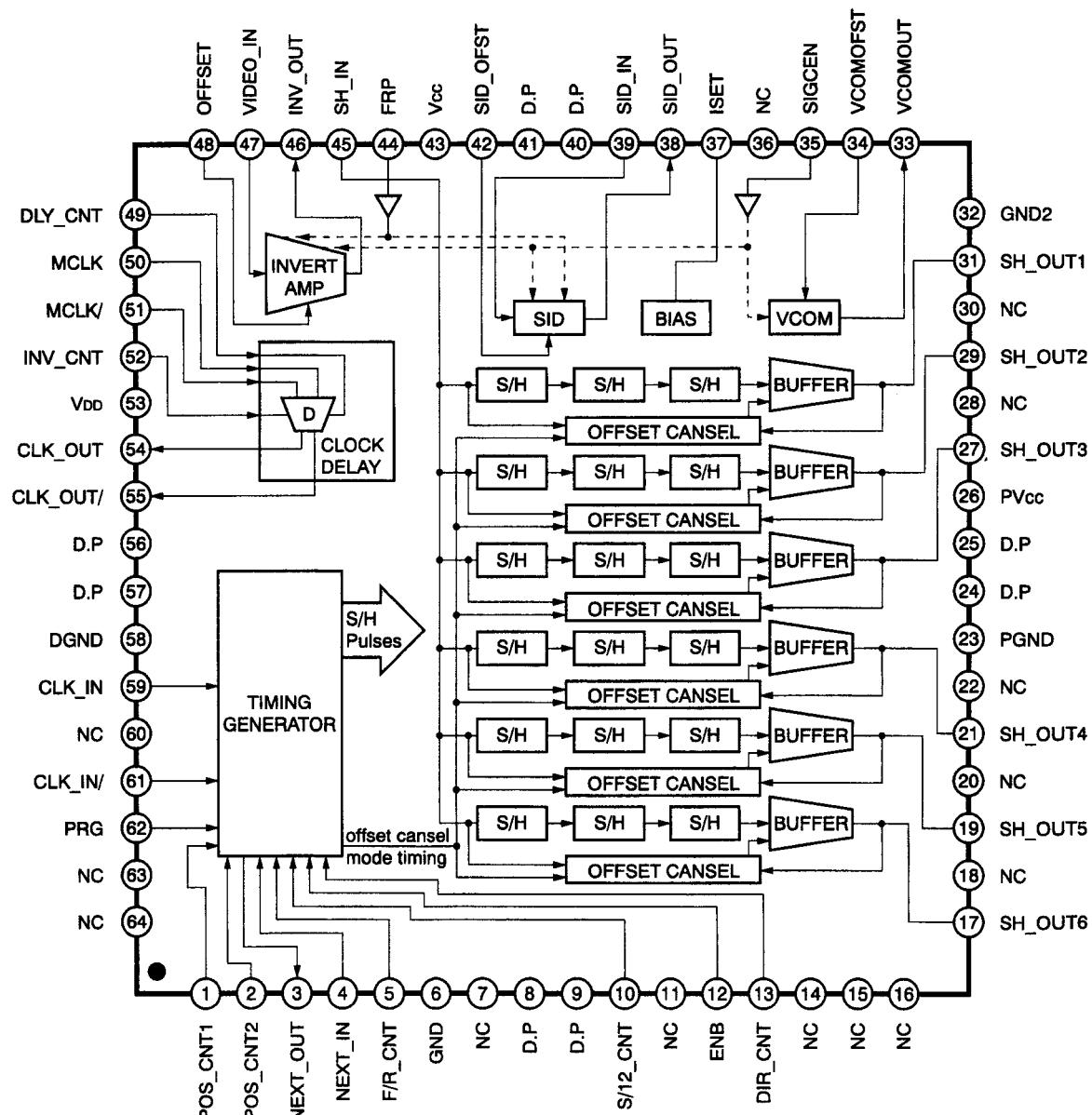


Fig. 1-1-4 Block diagram of CXA2112R

1-3. Timing Chart

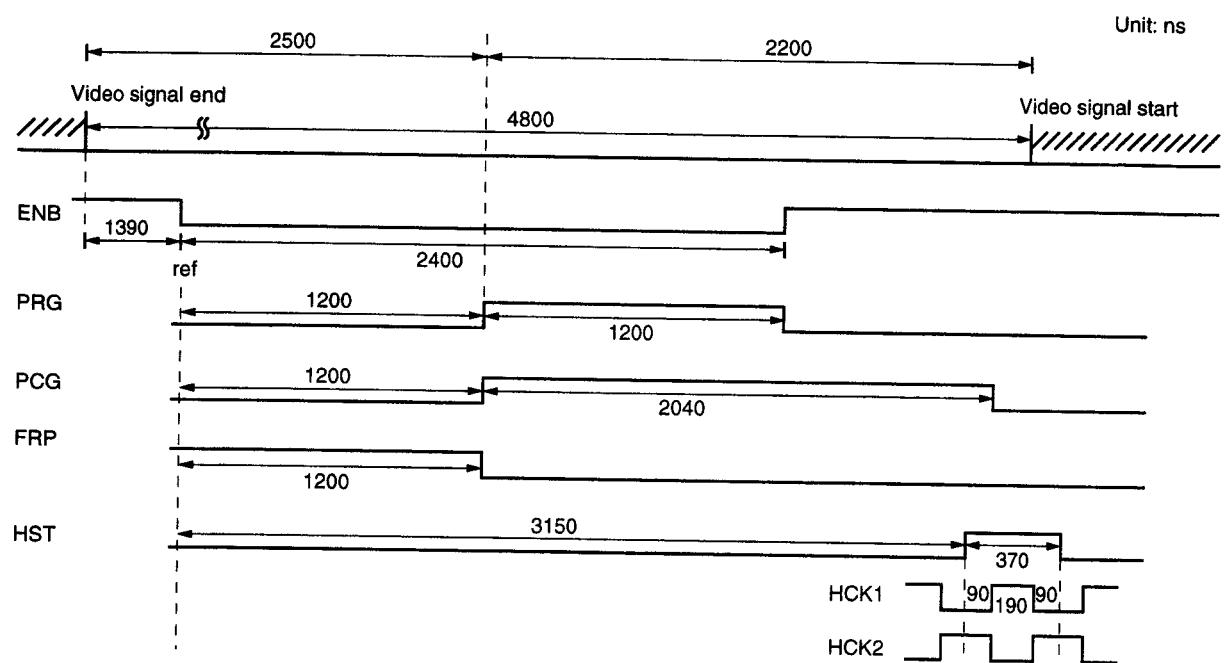


Fig. 1-1-5 Horizontal timing chart

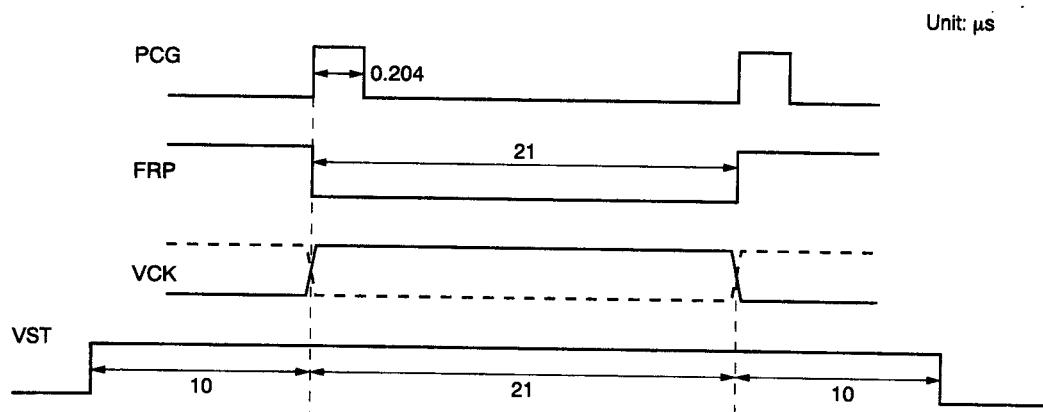


Fig. 1-1-6 Vertical timing chart

1-4. LCD Panel

1-4-1. Outline

The LCD panel is an active matrix panel using a super thin film multi-crystal silicone transistors with a driver built-in 3.3 cm in diagonal length.

The LCD panel assures a high quality pictures with an advanced on chip black matrix, crosstalk free circuit and ghost free circuit employed.

It also contains a poly-silicone TFT high speed scanner and up-down, lift-right inversion functions. Moreover, a 5V system interface circuit employed allows a low voltage operation for the timing and signal control.

1-4-2. Features

- Display dot number 786,000 dots 3.3 cm diagonal (1.3" type)
- High transparent ratio 18% (nominal)
- Crosstalk free circuit and ghost free circuit built-in.
- High contrast ratio with normally white mode employed, 250 (nominal)
- H, V drivers built-in (with input level conversion circuit, 5V operation available)
- Up-down, left-right inversion display function

1-4-3. Device Structure

- Dot number 1024 (H) x 768 (V) = 786,432
- Active matrix panel with driver, using multi-crystal silicone transistors.

Table 1-1-1 Terminal description

Pin No.	Name	Description
1	PSIG	Uniformity improvement signal input terminal.
2	VssGR	Dedicated GND terminal for right V gate.
3	VSIG1	Video signal 1 input terminal for panel.
4	VSIG2	Video signal 2 input terminal for panel.
5	VSIG3	Video signal 3 input terminal for panel.
6	VSIG4	Video signal 4 input terminal for panel.
7	VSIG5	Video signal 5 input terminal for panel.
8	VSIG6	Video signal 6 input terminal for panel.
9	VSIG7	Video signal 7 input terminal for panel.
10	VSIG8	Video signal 8 input terminal for panel.
11	VSIG9	Video signal 9 input terminal for panel.
12	VSIG10	Video signal 10 input terminal for panel.
13	VSIG11	Video signal 11 input terminal for panel.
14	VSIG12	Video signal 12 input terminal for panel.
15	HVDD	H driver power supply input terminal.
16	RGT	H shift register drive direction input terminal. (H: normal direction, L: reverse direction)
17	HST	Start pulse input terminal for H shift register drive.
18	HCK2	Clock input terminal 2 for H shift register drive.
19	HCK1	Clock input terminal 1 for H shift register drive.
20	Vss	H, V drivers GND terminal.
21	VssGL	Dedicated GND terminal for left V gate.
22	BLK	PC98 display panel input terminal.
23	ENB	Enable input terminal for gate selection pulse.
24	VCK	Clock input terminal for V shift register drive.
25	VST	Start pulse input terminal for V shift register drive.
26	DWN	V shift register drive direction input terminal. (H: normal direction, L: reverse direction)
27	HB	S-XGA display area switching input terminal.
28	VB	PC98 display area switching input terminal.
29	PCG	Uniformity improvement pulse input terminal.
30	VVDD	V driver power supply input terminal.
31	COM	Panel opposite voltage input terminal.
32	TEST	Keep to open as test terminal.

2. SUPPLEMENT FOR ELECTRICAL CIRCUIT/OPTICAL SYSTEM (LCD PANEL) ADJUSTMENT

< Service jig >

- Extension cable kit: 23505407
- Focus adjust jig: 23974761



Fig. 1-2-1

When using the extension cable kit (23505407), you will perform the adjustment on PC boards removing the PC boards from the unit.

1. Remove the PC boards (Video/audio, digital and drive) from the unit.
2. Connect PC boards each other again.
3. Connect the unit and PC boards removed using the extension cable.

— Connection of each extension cable —

(1)	Power unit – Drive board (PF001)	4P
(2)	Power unit – Video board (PV008)	7P
(3)	Power unit – Digital board (PX007)	5P
(4)	Power unit – Drive board (PL002)	4P
(5)	Intake fan – Drive board (PF004)	5P
(6)	Exhaust fan – Drive board (PF003)	3P
(7)	Lamp power unit – Drive board (PL009)	3P
(8)	Thermal lead SW	2P
(9)	LCD panel – Drive board (P401)	32P
(10)	LCD panel – Drive board (P401)	32P
(11)	LCD panel – Drive board (P401)	32P

— This connector is open —

- (1) PL001 Drive board
- (2) PL003 Drive board – F. REM board
- (3) PF002 Drive board – F. REM board

3. ELECTRICAL ADJUSTMENT

< Test Equipments and Test Jigs >

- Oscilloscope
- Digital voltmeter
- Standard white board (WS-2)
- Color luminance meter (BM-5)
- Adjustment software TLP521.EXE

< Input Signal List (for use of ROM:TLP511.EXE) >

- Stairstep signal (RGB)
- Gray scale signal (Video/RGB)
- White 50% signal (RGB)
- SMPTE signal (RGB)
- Common voltage adjustment signal XGA (RGB)

< Connection and Setting of Computer >

(1) Connection of computer

- 1) Connect a computer as shown in Fig. 4-0-1, and then perform the adjustment using the adjustment software TLP521.EXE. (When using a drive C, type C: \TLP521.EXE and press enter key.)

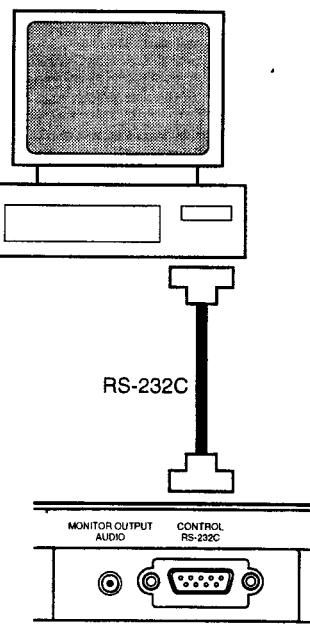
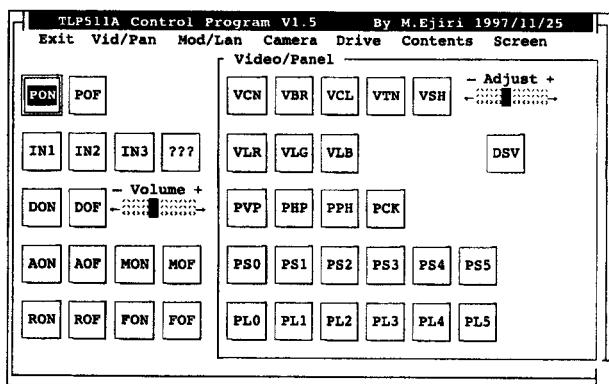


Fig. 1-3-1

(2) Default status setting

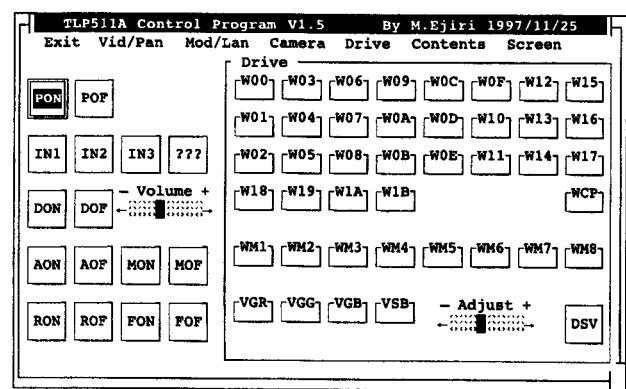
- 1) Connect computer and boot adjustment software.
- 2) Set contrast & brightness at the default.
(Refer to owner's manual)



**Fig. 1-3-2 Display of computer monitor
(Vid/Pan menu: at starting period)**

(3) Adjustment method

- 1) Adjustment is carried out by using Drive menu on the computer monitor.



**Fig. 1-3-3 Display of computer monitor
(Drive menu: for adjustment)**

- 2) stands for an Drive menu key.
After clicked shown in adjustment items, click the side and side of **Adjust +** alternately to adjust to a specified value.
- 3) Before proceeding to each adjustment click in Drive menu to set RGB input. When making "1-3. Video signal input adjustment" click to set video input.

< Adjustment Locations and Adjustment Items >

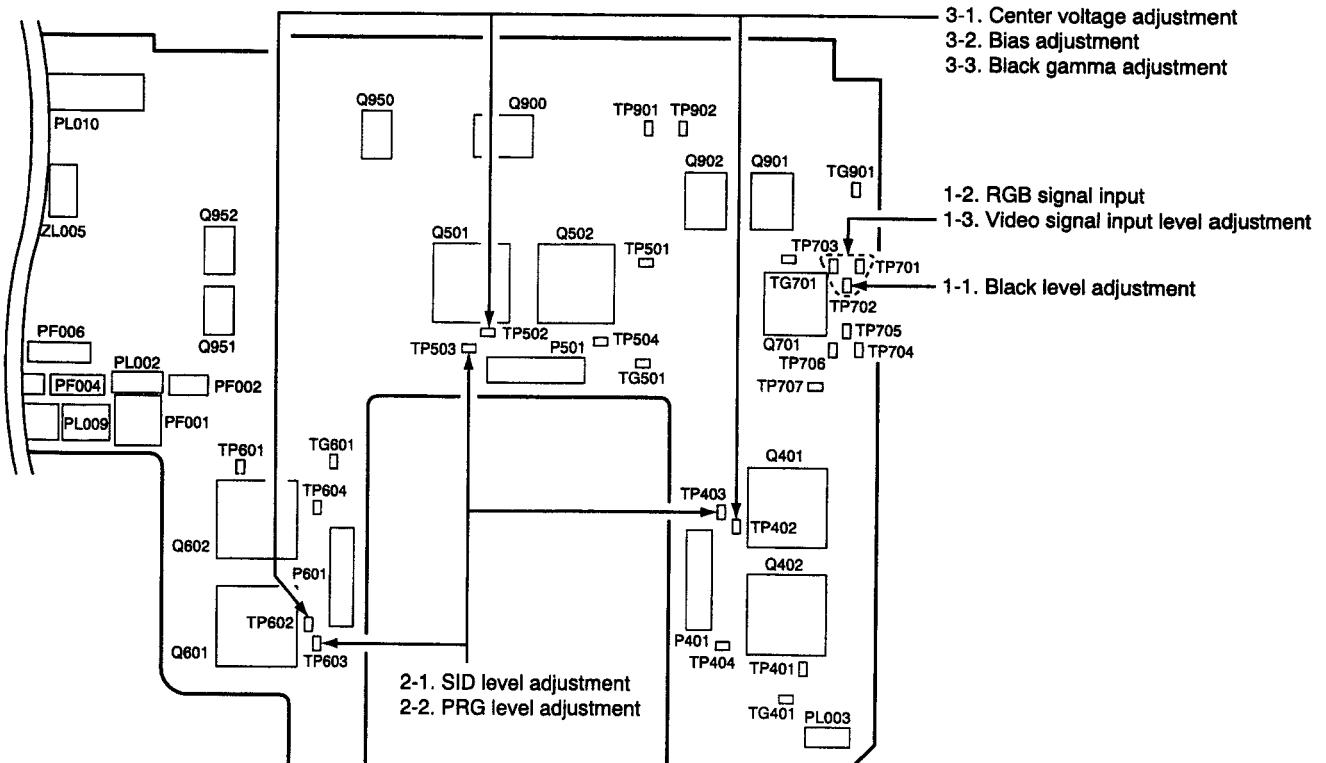
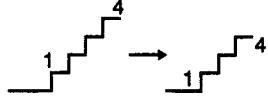
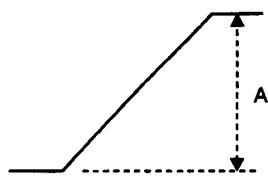
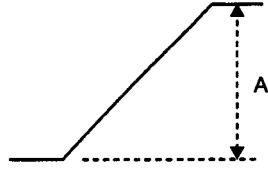
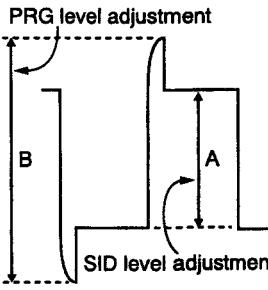


Fig. 1-3-4 Drive PC board (Top side)

Table 1-3-1

Adjust Items	Input Signal	Test Equipment	Test Point	Adjust Key	Adjust Value	Note
1. Input level adjustment						
1-1. Black level adjustment	Stairstep signal (RGB)	Oscilloscope	TP702 (G)	VSB	<ul style="list-style-type: none"> See the illustration right. 	<ul style="list-style-type: none"> Match the pedestal level to the black signal (1st step) using VSB in the adjust menu.  <p>Trigger the oscilloscope at TP901. (H sync)</p>
1-2. RGB signal input adjustment	Gray scale signal (RGB)	Oscilloscope	TP701 (R) TP702 (G) TP703 (B)	VGR VGG VGB	$A = 1.20V \pm 20\text{ mV}$ $A = 1.20V \pm 20\text{ mV}$ $A = 1.33V \pm 20\text{ mV}$	 <p>Trigger the oscilloscope at TP901. (H sync)</p>
1-3. Video signal input level adjustment	Gray scale signal (video)	Oscilloscope	TP701 (R) TP702 (G) TP703 (B)	VGR VGG VGB	$A = 1.10V \pm 20\text{ mV}$ $A = 1.20V \pm 20\text{ mV}$ $A = 1.28V \pm 20\text{ mV}$	 <p>Trigger the oscilloscope at TP901. (H sync)</p>
2. PSIG adjustment						
2-1. SID level adjustment	Gray scale signal (RGB)	Oscilloscope	TP403 (R) (TP503 (G)) (TP603 (B))	W1	$A = 3.8V \pm 50\text{ mV}$	<ul style="list-style-type: none"> Set the amplitude of A to $3.8V \pm 50\text{ mV}$ (Rch) and confirm Gch and Bch level. 

Adjust Items	Input Signal	Test Equipment	Test Point	Adjust Key	Adjust Value	Note
2-2. PRG level adjustment	Gray scale signal (RGB)	Oscillo-scope	TP403 (R) (TP503 (G)) (TP603 (B))	W2	B = 9V ± 50 mV	<ul style="list-style-type: none"> Set the amplitude of B to 9V ± 50 mV (Rch) and confirm G ch and Bch level.
3. Gamma adjustment	16 stairstep signal (RGB)	Oscillo-scope	TP402 (R) TP502 (G) TP602 (B)	W6	A = B	
3-2. Bias adjustment	16 stairstep signal (RGB)	Oscillo-scope	TP402 (R) TP502 (G) TP602 (B)	W3 W4 W5	6.90V ± 20 mV 6.90V ± 20 mV 6.94V ± 20 mV	<ul style="list-style-type: none"> Adjust the 16th step as shown in the figure.
3-3. Black gamma adjustment	16 stairstep signal (RGB)	Oscillo-scope	TP402 (R) TP502 (G) TP602 (B)	W9 W10 W11	4.50V ± 60 mV 4.50V ± 60 mV 4.16V ± 60 mV	<ul style="list-style-type: none"> Adjust the 2nd step as shown in the figure.
4. Ghost adjustment	SMPTE signal (RGB)	Oscillo-scope	Screen	W19	Ghost: minimum	<ul style="list-style-type: none"> After adjustment, select PEP in Vid/Pan menu and adjust the picture position in horizontal direction.

Adjust Items	Input Signal	Test Equipment	Test Point	Adjust Key	Adjust Value	Note
5. COM adjustment	COM adjust signal (RGB)	Oscillo-scope	Screen (R) Screen (G) Screen (B)	W _{N7} W _{H6} W _{M5}	(Approx. 7.4V (TP404)) (Approx. 7.4V (TP504)) (Approx. 7.4V (TP604))	<ul style="list-style-type: none"> • Adjust flicker to minimum.
6. White balance adjustment	White 50% signal (RGB)	<ul style="list-style-type: none"> • Standard white board (WS-2) • Color luminance meter (BM-5) 		W _{N3} W _{N4} W _{N5}		<ol style="list-style-type: none"> 1. Place the unit in a dark room and feed white 50% signal. 2. Attach standard white board WS-2 on the center of screen or hang the board so that it touches the screen. 3. Set color luminance meter BM-5 warmed-up more than 30 min. to measure color temperature on WS-2. 4. After confirming that the luminance is set within the range of 65 - 75 cd/mm; <ul style="list-style-type: none"> • When luminance is low, adjust W_{N3}, W_{N4} and W_{N5} to decrease the value in the same number of steps. • When luminance is high, adjust W_{N3}, W_{N4} and W_{N5} to increase the value in the same number of steps. 5. Measure the color temperature using BM-5 and adjust the values of x and y are set within the range of x = 0.280 to 0.290 and y = 0.310 to 0.320 using W_{N3} and W_{N5}. <p>As a reference; To increase the value x, decrease the value of W_{N3} and to increase the value y, increase the value of W_{N5}.</p> <p>x = 0.27 ± 0.005 y = 0.300 ± 0.015 Color temperature: 10000K ± 500K</p>

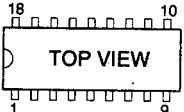
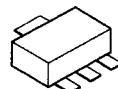
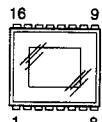
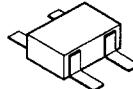
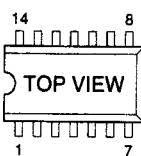
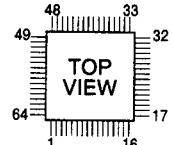
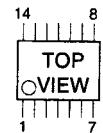
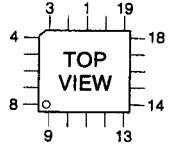
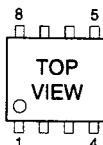
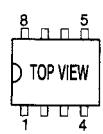
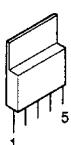
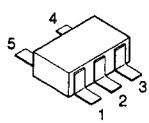
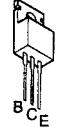
SECTION 2

SERVICING DIAGRAMS

1. PART CONFIGURATION AND THEIR SYMBOLS

1.ICs

NAME	SHAPE	NAME	SHAPE
TC203E2651AF EPF6016QC208	<p>TOP VIEW</p>	TDA9141	<p>TOP VIEW</p>
SYG-TC160G	<p>TOP VIEW</p>	MC74HC165F MM1024AF M62320FP MAX497CSE	<p>TOP VIEW</p>
HD49811TFA	<p>TOP VIEW</p>	CD0016AM	<p>TOP VIEW</p>
6473337PROG	<p>TOP VIEW</p>	TDA4780	<p>TOP VIEW</p>
CXA1855Q CXA3197R HD49322BF CXA3026Q	<p>TOP VIEW</p>	TC9090AN	<p>TOP VIEW</p>
CXA3106Q	<p>TOP VIEW</p>	M52347FP UPD4721GS M62399FP	<p>TOP VIEW</p>
MB814265-60	<p>TOP VIEW</p>	CXD1267AN	<p>TOP VIEW</p>
M52348FP	<p>TOP VIEW</p>	TC74HCT240AF TC74ACT244F TC74HC541AF	<p>TOP VIEW</p>
M52320SP	<p>TOP VIEW</p>	MC74HC541FEL	<p>TOP VIEW</p>

NAME	SHAPE	NAME	SHAPE
TDA4672		2SC2873-Y(C) TA78L05F	
ICX059AK-6		MM1031XMR	
TDA4665T CXA1315M		M52055FP	
TC74HC125AF TC74ACT04F MC74HC14AF		CXA2112R CXA2111R	
TLC2932IPW		EPC1LC20	
TC7W32FU AK93C65AV MAX4121CSA MC33078M M5222FP TC7W74FU		LA4425A	
CAT24C16J TC4W53F		2.TRANSISTORs	
PQ20VZ1U LM2991SX		PQ05SZ1U	
TC7S04F TC7S32F TC7S08F TC7S04FU TC7S14F RN5VD27A		2SC3834	

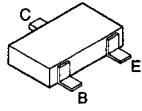
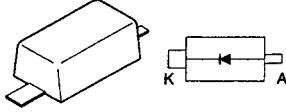
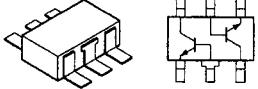
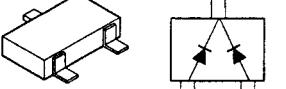
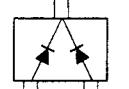
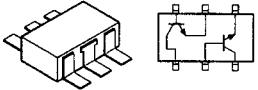
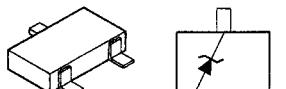
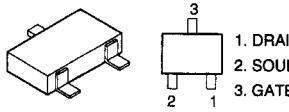
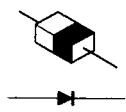
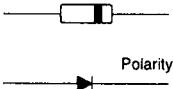
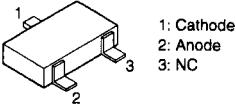
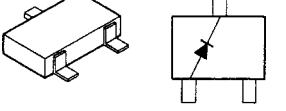
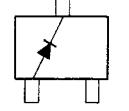
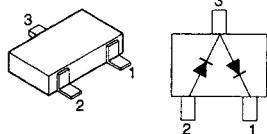
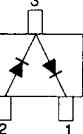
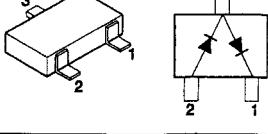
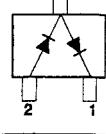
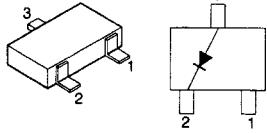
NAME	SHAPE	NAME	SHAPE
RN2404,2SC2712-Y 2SA1298-Y,2SC2712-Y 2SC3265-Y,2SC3356 2SA1586-Y,RN1402 2SA1162-Y,2SC3931-C 2SC4116-Y,UN5213		MA111	
UMZ1	 	1SS301	 
XN6213	 	RD12M RD15M-T2BB2 RD5.1M-T1BB2 RD2.4M	 
2SK880-Y	 1. DRAIN 2. SOURCE 3. GATE	1T363	
3.DIODEs		DTZ8.2B DTZ15C	
MTZJ15B		SPR325MVWMNP	
RD10MB2	 1: Cathode 2: Anode 3: NC	RD6.2M-T2BB2 RD2.0M-T1BB	 
1SS302 1SS226	 	1SS372	 
1SS187	 		

Fig. 2-1-1

1-1. Replacing Subminiature "CHIP" Parts

1-1-1. Required Tools:

1. Fine tipped, well insulated soldering "pencil", about 30 Watts.
2. Tweezers.
3. Blower type hair dryer.

1-1-2. Soldering Cautions:

1. Do not apply heat for more than 3s.
2. Avoid using a rubbing stroke when soldering.
3. Discard removed chips; do no reuse them.
4. Supplementary cementing is not required.
5. Use care not to scratch or otherwise damage the chips.

1-1-3. Removal (Resistors, Capacitors, etc.):

1. Melt the solder at one side.

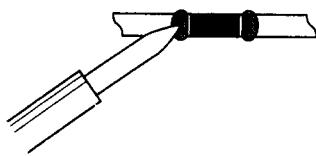


Fig. 2-1-2

2. Grasp the part with tweezers and melt the solder at the other side.

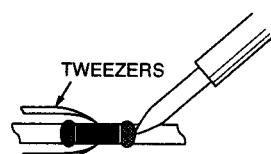


Fig. 2-1-3

3. Remove the part with a twisting motion.

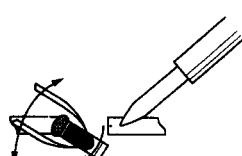


Fig. 2-1-4

1-1-4. Removal (Transistors, Diodes, etc.):

1. Melt the solder of one lead.

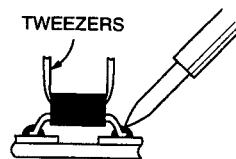


Fig. 2-1-5

2. Lift the side of that lead upward.

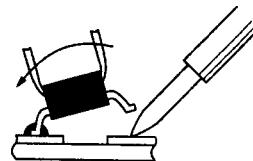


Fig. 2-1-6

3. Simultaneously heat solder the two remaining leads and lift part to remove.

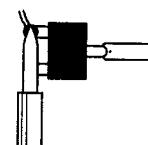


Fig. 2-1-7

1-1-5. Preheating (Except for semiconductors):

Immediately before installing new resistors or capacitors, use a blower type hair dryer and preheat the part for about two min. at approximately 150°C.

1-1-6. Replacement:

1. Presolder the contact points of the circuit pattern.

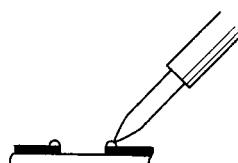


Fig. 2-1-8

2. Press the part downward with tweezers and apply the soldering pencil as indicated in the figure.

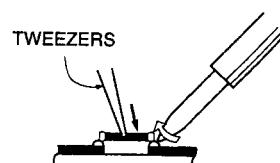


Fig. 2-1-9

1-2. Precautions for Part Replacement

- In the schematic diagram, parts marked Δ (ex. Δ F801) are critical part to meet the safety regulations, so always use the parts bearing specified part codes (SN) when replacing them.
- Using the parts other than those specified shall violate the regulations, and may cause troubles such as operation failures, fire etc.

1-3. Solid Resistor Indication

Unit	None Ω k $k\Omega$ M $M\Omega$
Tolerance	None $\pm 5\%$ B $\pm 0.1\%$ C $\pm 0.25\%$ D $\pm 0.5\%$ F $\pm 1\%$ G $\pm 2\%$ K $\pm 10\%$ M $\pm 20\%$
Rated Wattage	(1) Chip Parts None 1/16W (2) Other Parts None 1/6W Other than above, described in the Circuit Diagram.
Type	None Carbon film S Solid R Oxide metal film W Metal film W Cement FR Fusible

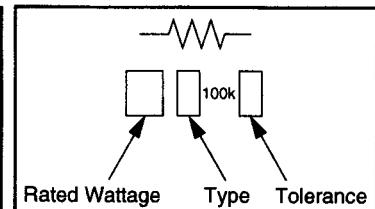


Fig. 2-1-10

1-4. Capacitance Indication

Symbol	— — \pm Electrolytic, Special electrolytic — — NP Non polarity electrolytic — — C Ceramic, plastic — — F Film — — T Trimmer
Unit	None F μ μ F p pF
Rated voltage	None 50V For other than 50V and electrolytic capacitors, described in the Circuit Diagram.
Tolerance	(1) Ceramic, plastic, and film capacitors of which capacitance are more than 10 pF. None $\pm 5\%$ or more B $\pm 0.1\%$ C $\pm 0.25\%$ D $\pm 0.5\%$ F $\pm 1\%$ G $\pm 2\%$ (2) Ceramic, plastic, and film capacitors of which capacitance are 10 pF or less. None more than $\pm 5\%$ pF B ± 0.1 pF C ± 0.25 pF (3) Electrolytic, Trimmer Tolerance is not described.
Temperature characteristic (Ceramic capacitor)	None SL For others, temperature characteristics are described. (For capacitors of 0.01 μ F and no indications are described as F.)

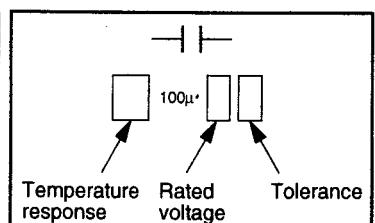


Fig. 2-1-11

1-5. Inductor Indication

Unit	None H μ μH m mH
Tolerance	None ±5% B ±0.1% C ±0.25% D ±0.5% F ±1% G ±2% K ±10% M ±20%
Type	PL Peaking For other, model name is described.

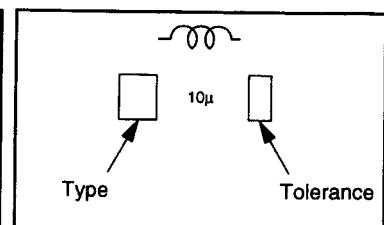


Fig. 2-1-12

1-6. Waveform and Voltage Measurement

- Measurement of waveform and voltage at each section in the color circuits was conducted with sufficient service color bar signal being received and reproduced in normal conditions.
- Waveforms and voltage values for the remaining circuit were measured with a broadcasting signal normally received, so they may vary slightly according to the programs being received. Use them as a measure for servicing.
- All voltage values except the waveforms are expressed in DC and measured by a digital voltmeter.

- If it is difficult to remove the part, temporarily stop the desoldering job and wait until temperature of the part lowers.
Then, repeat steps 1 and 2.
- Form leads of the replacement part (general part equivalent to the chip part) as shown in the figures and solder place. (Fig. 2-1-14)

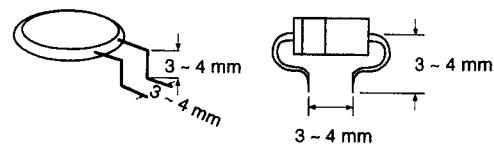


Fig. 2-1-14

- Mount the replacement part so that it does not touch any other parts. (Fig. 2-1-15)

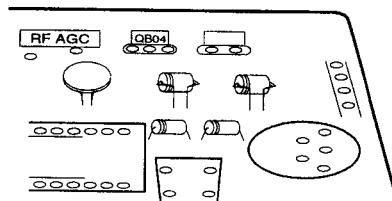


Fig. 2-1-15

- Hold a Chip part to be removed with tweezers and apply heat to the solder at one end of the part with a soldering iron. (Fig. 2-1-13)
- Apply heat to the solder at the other end of the part and remove it.

The heating time should be as short as possible so the excessive heat is not applied to foil patterns and the PC Board.

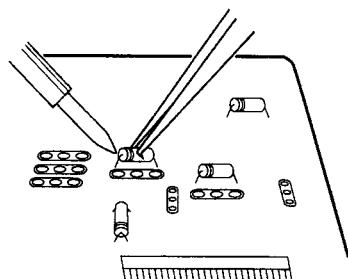


Fig. 2-1-13

2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM

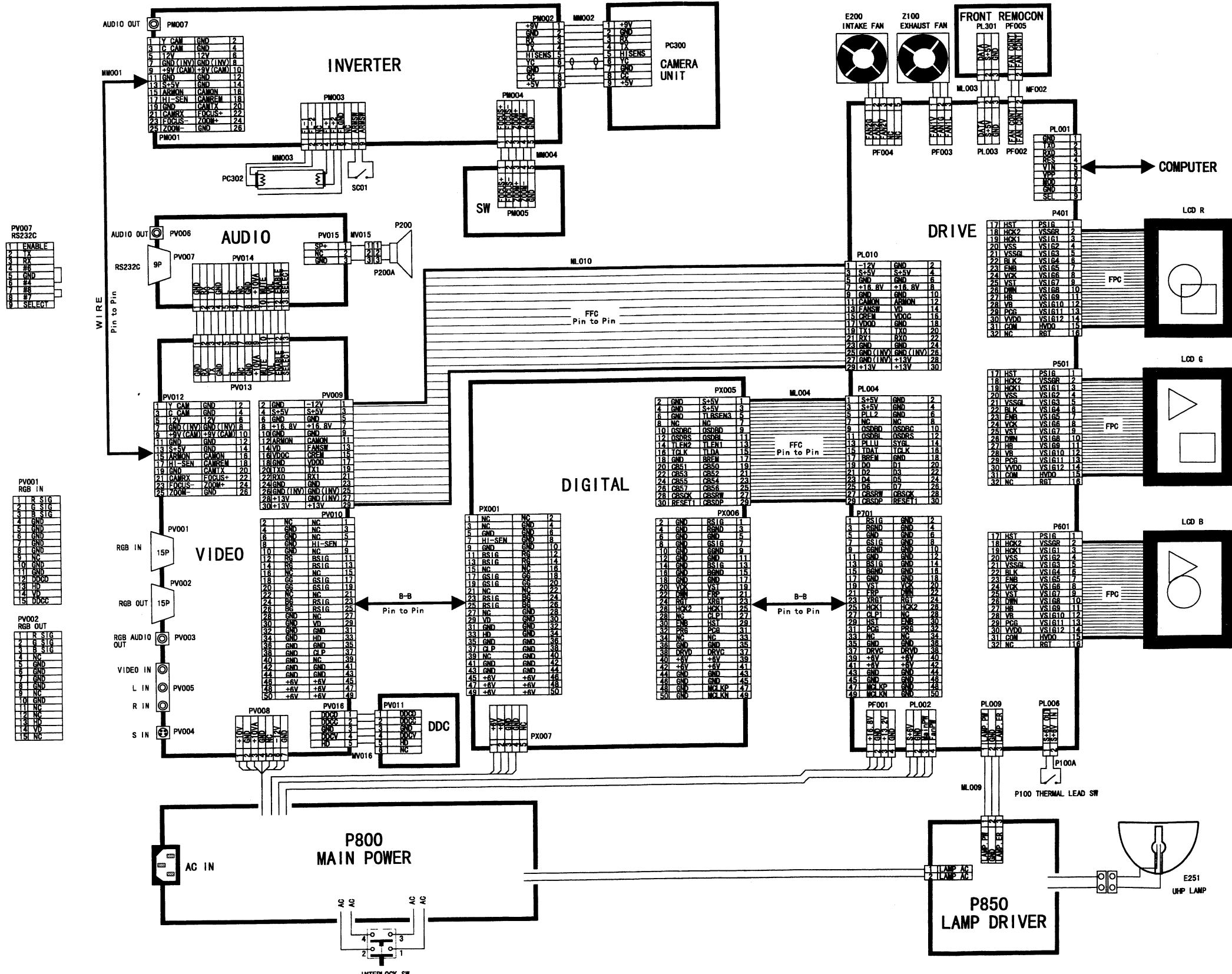


Fig. 2-2-1

3. BLOCK DIAGRAMS

3-1. System Block Diagram

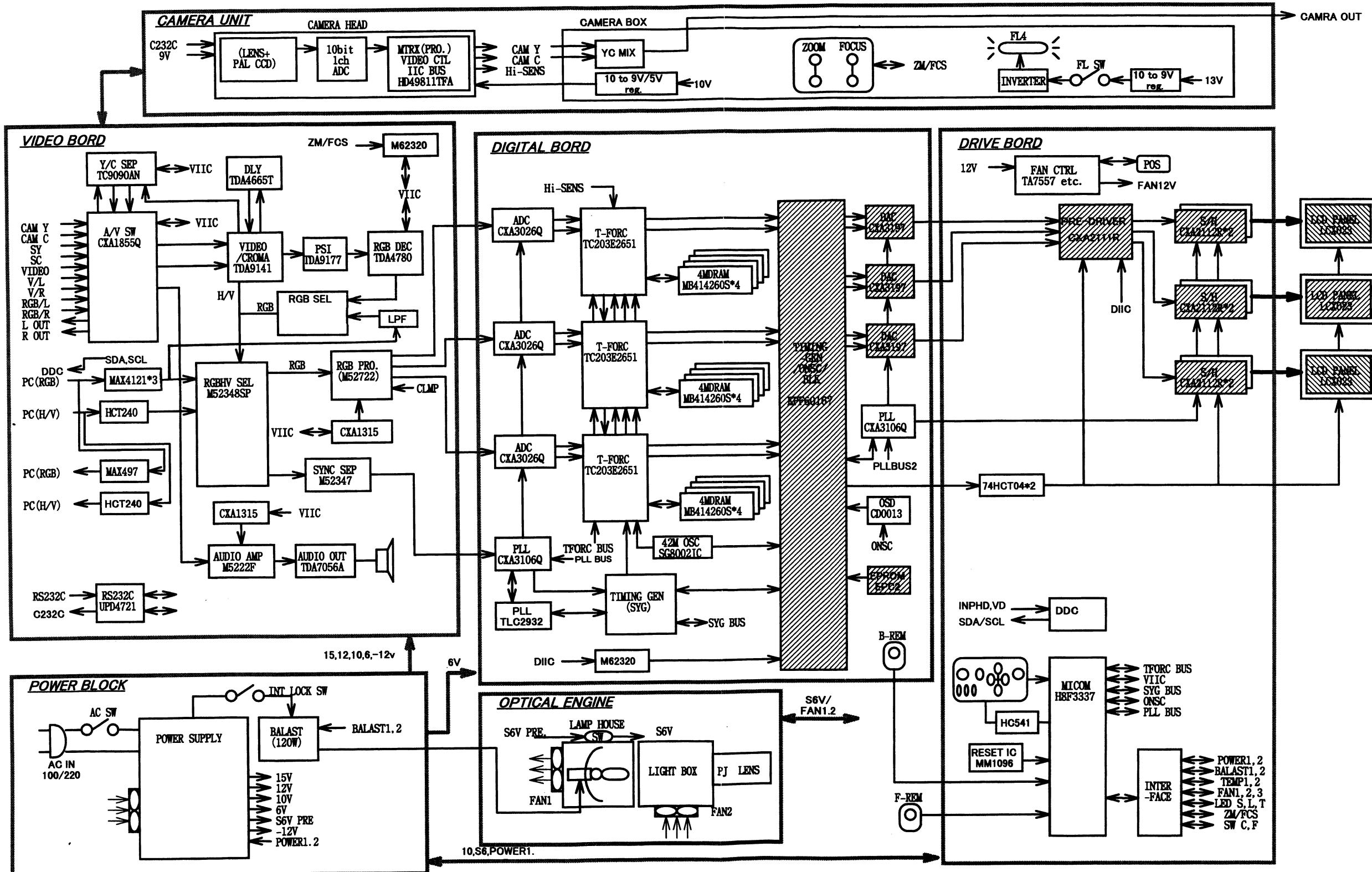
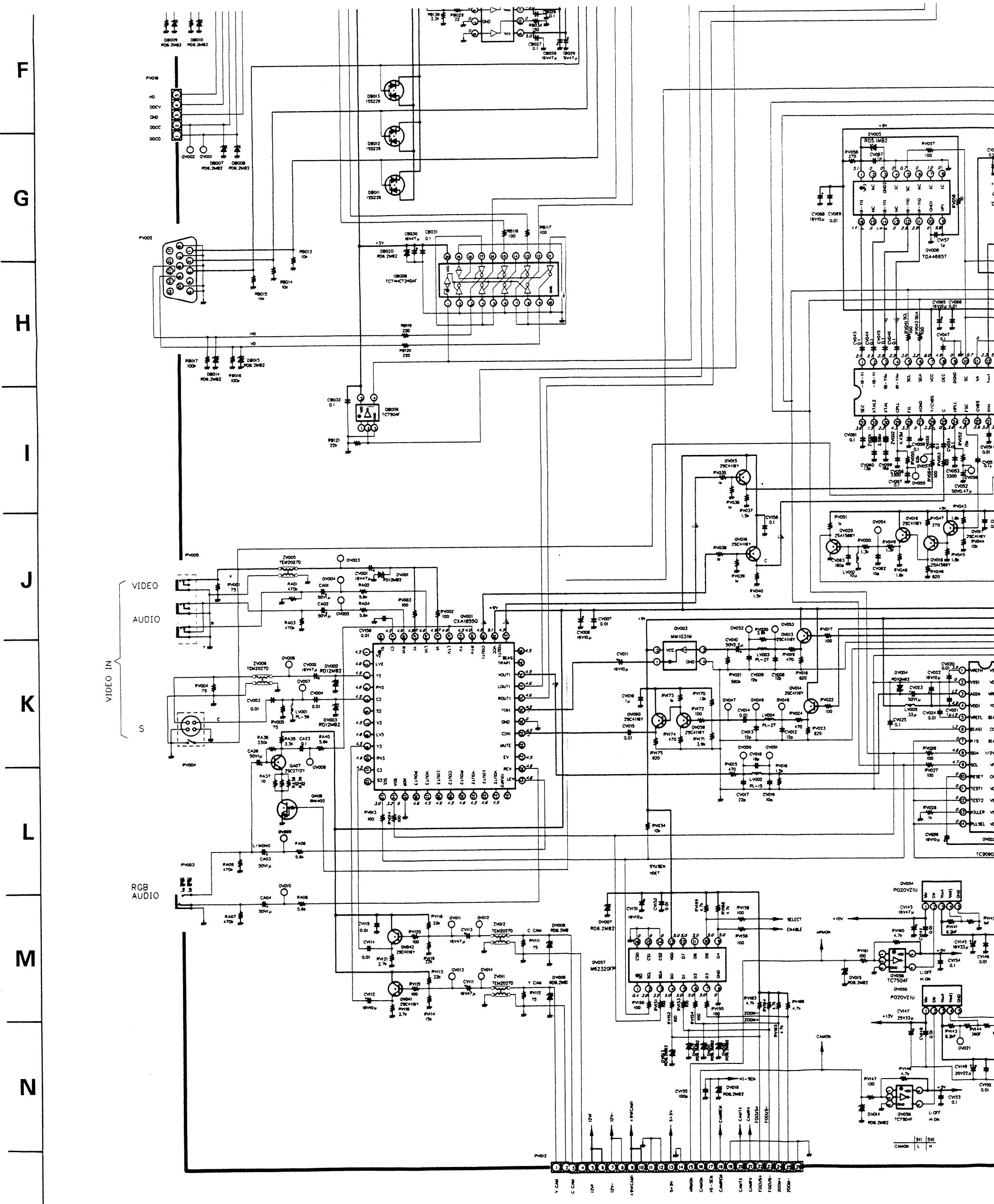
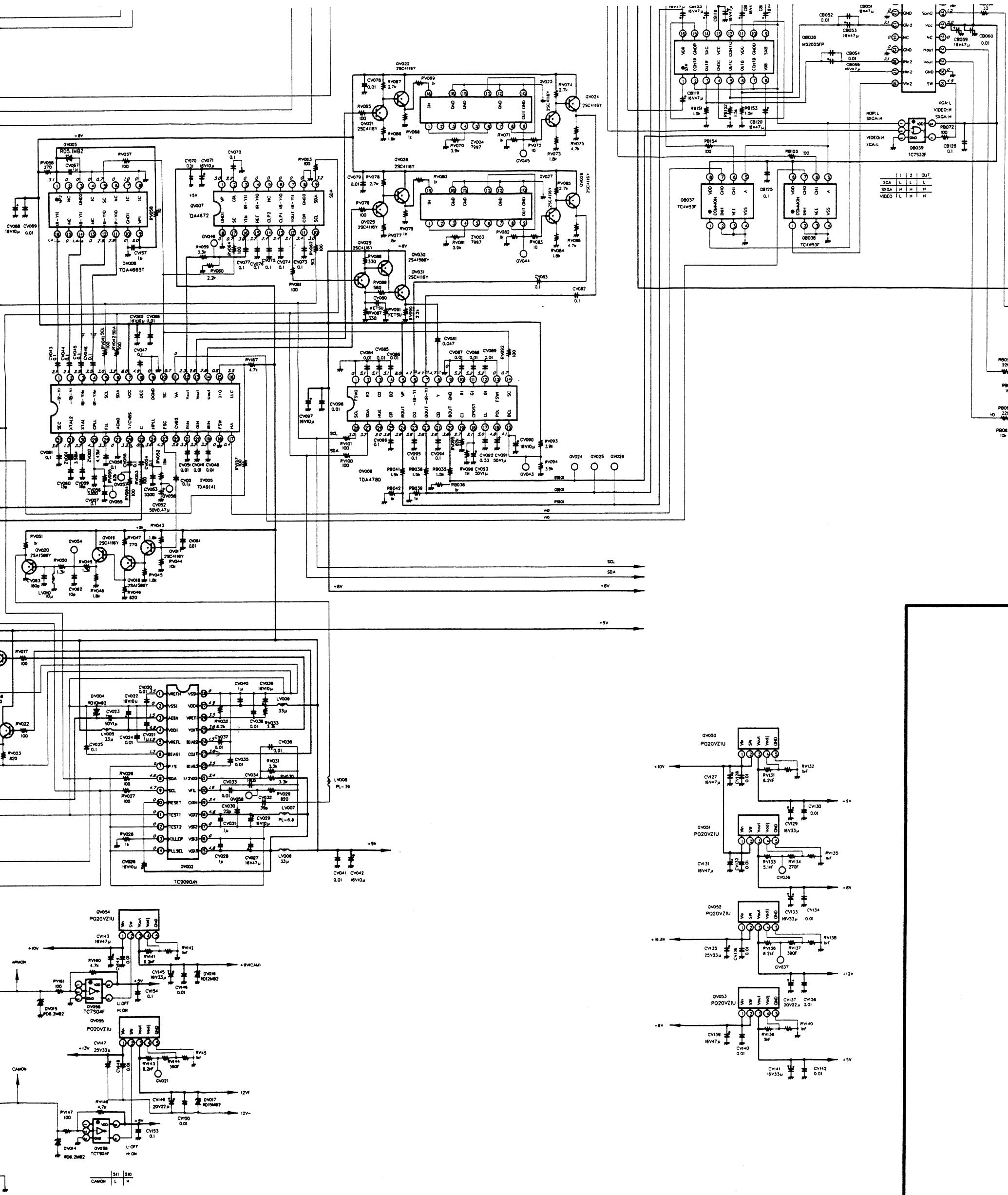
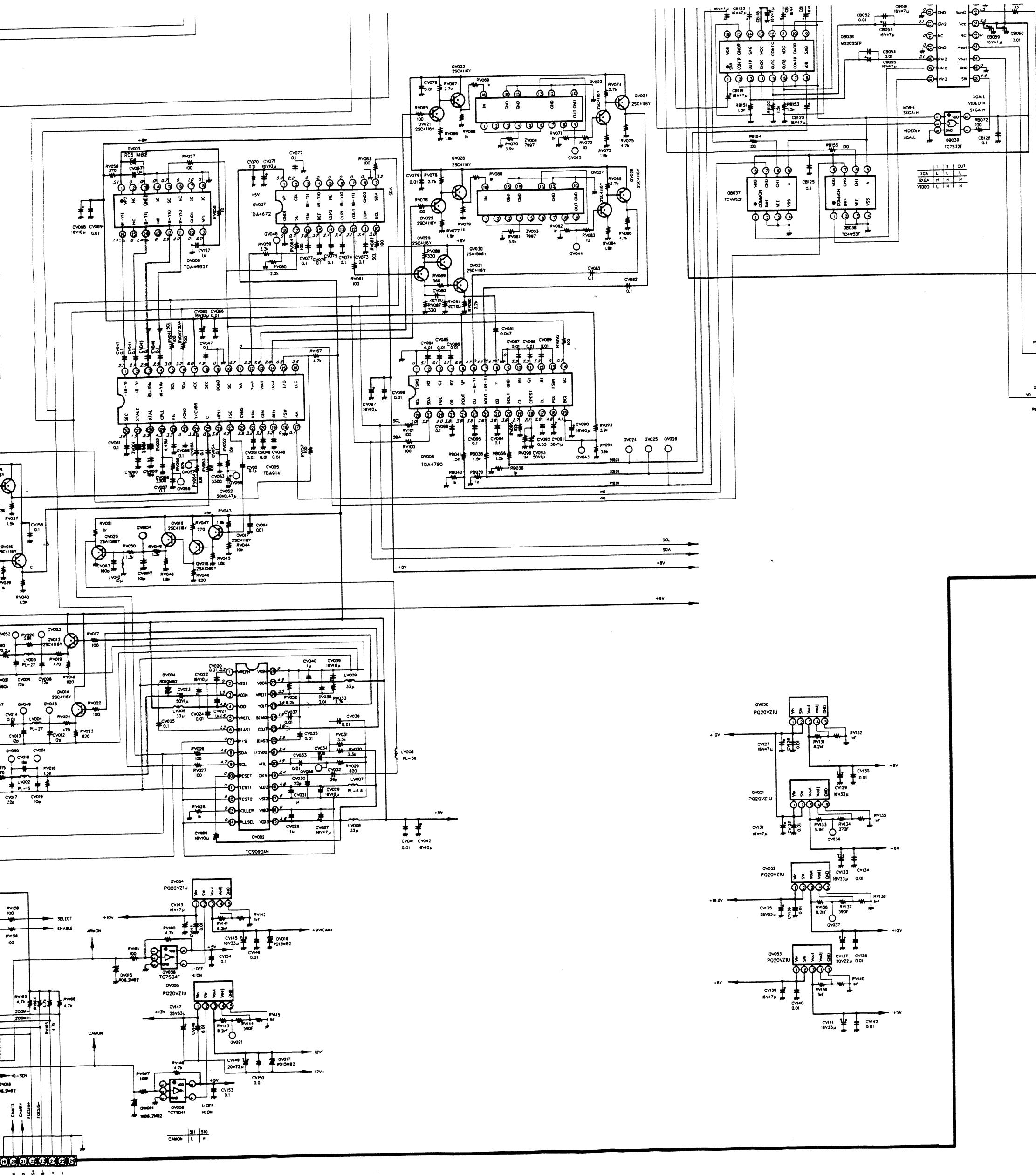


Fig. 2-3-1







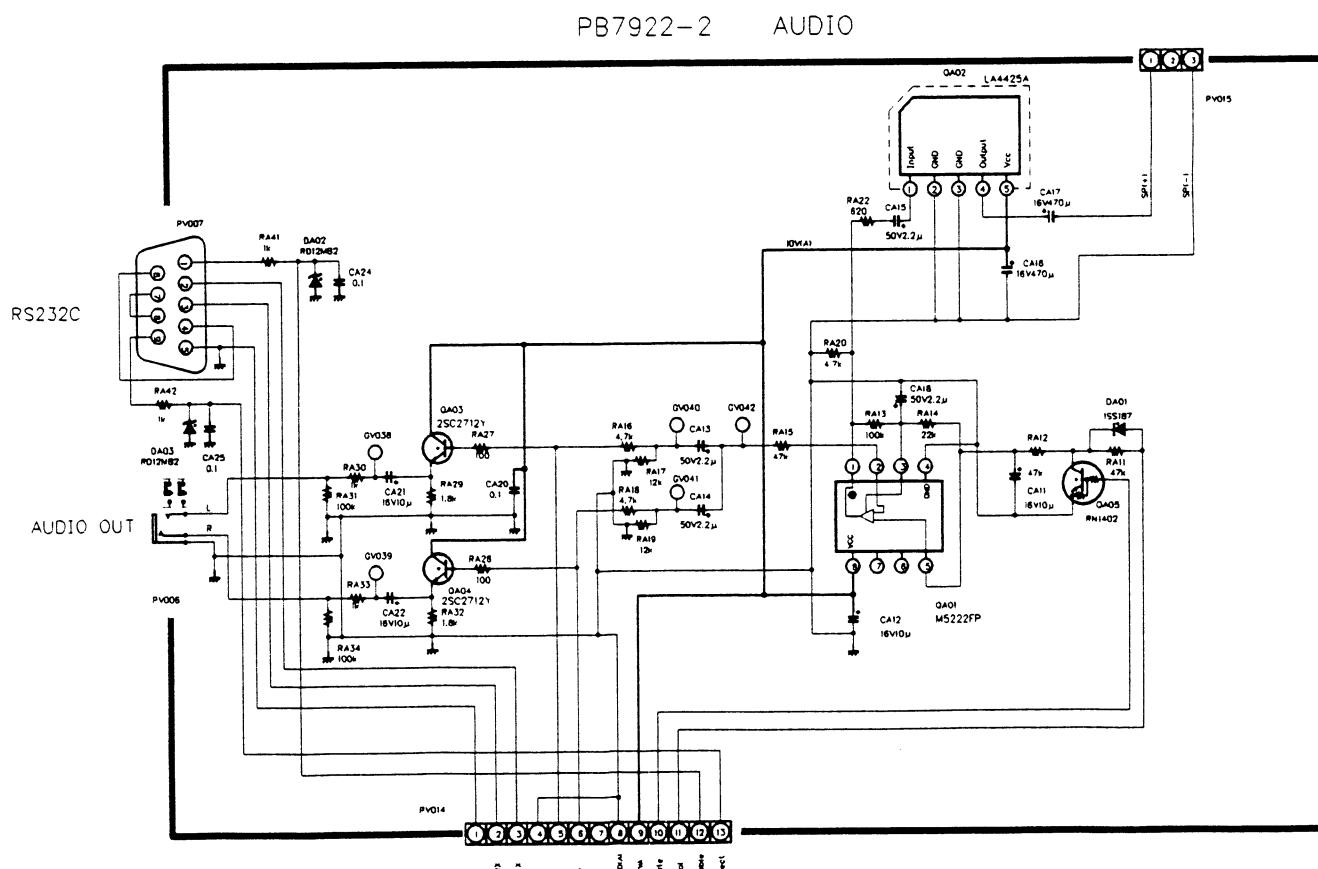
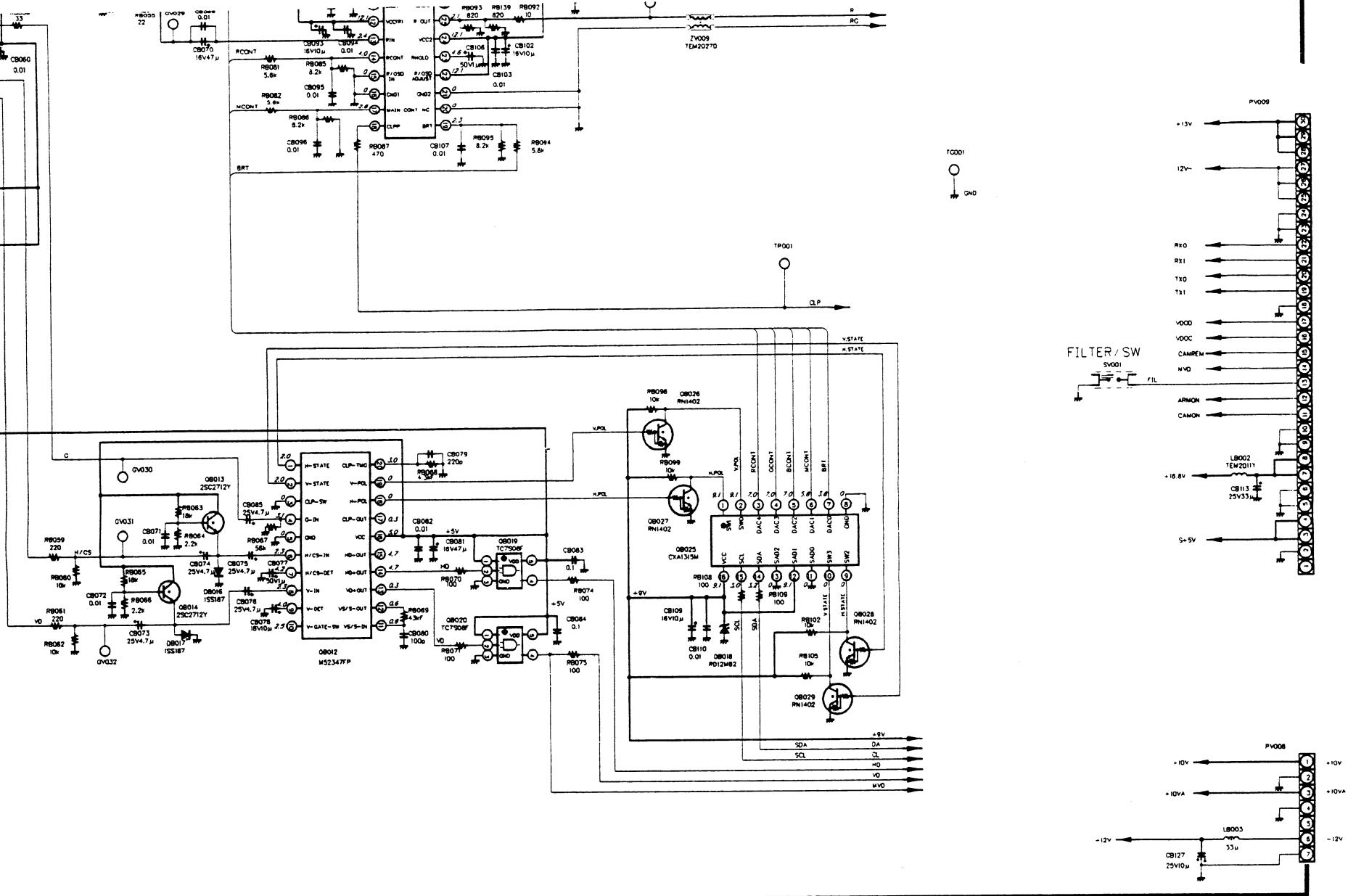


Fig. 2-4-1

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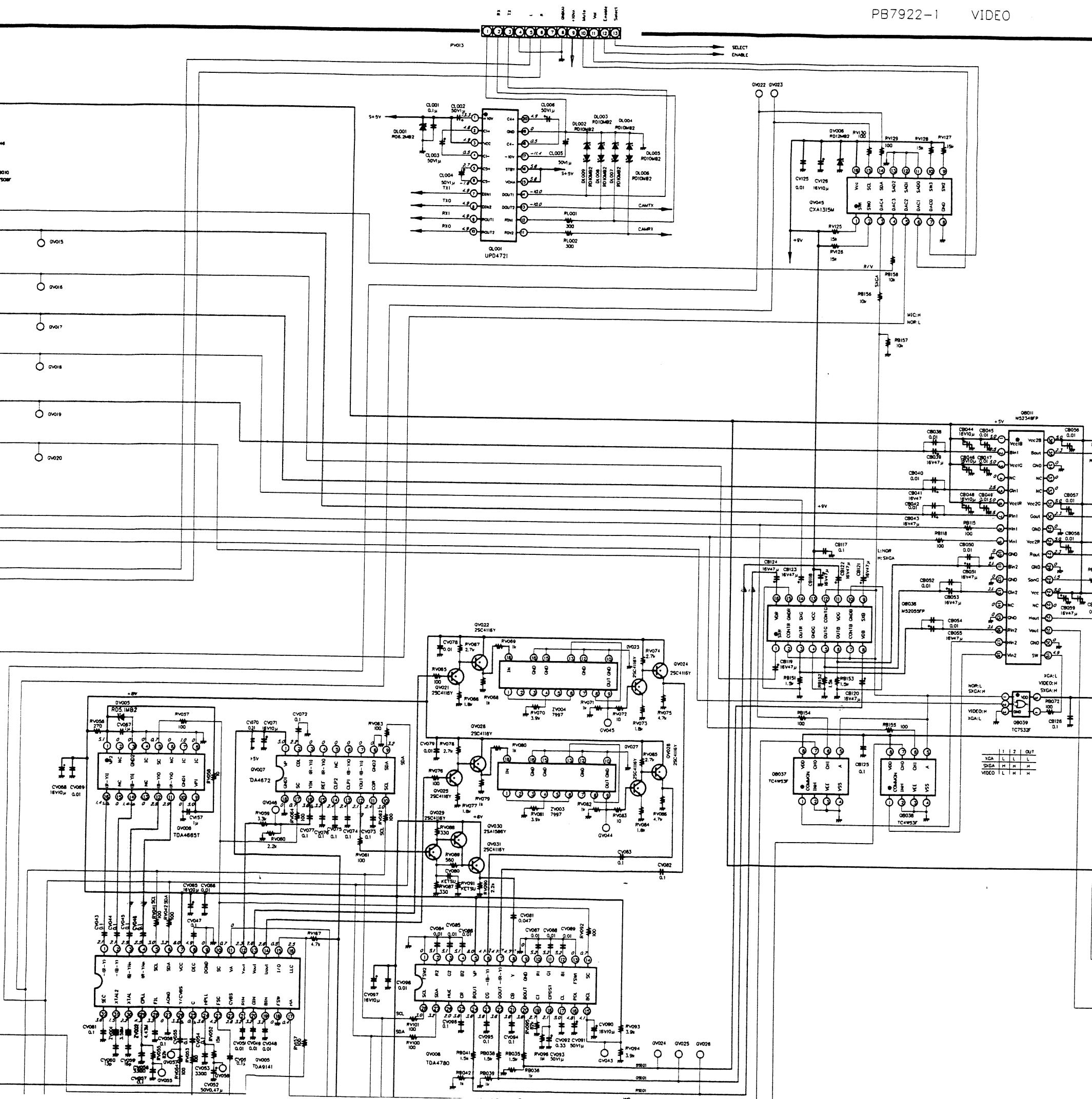
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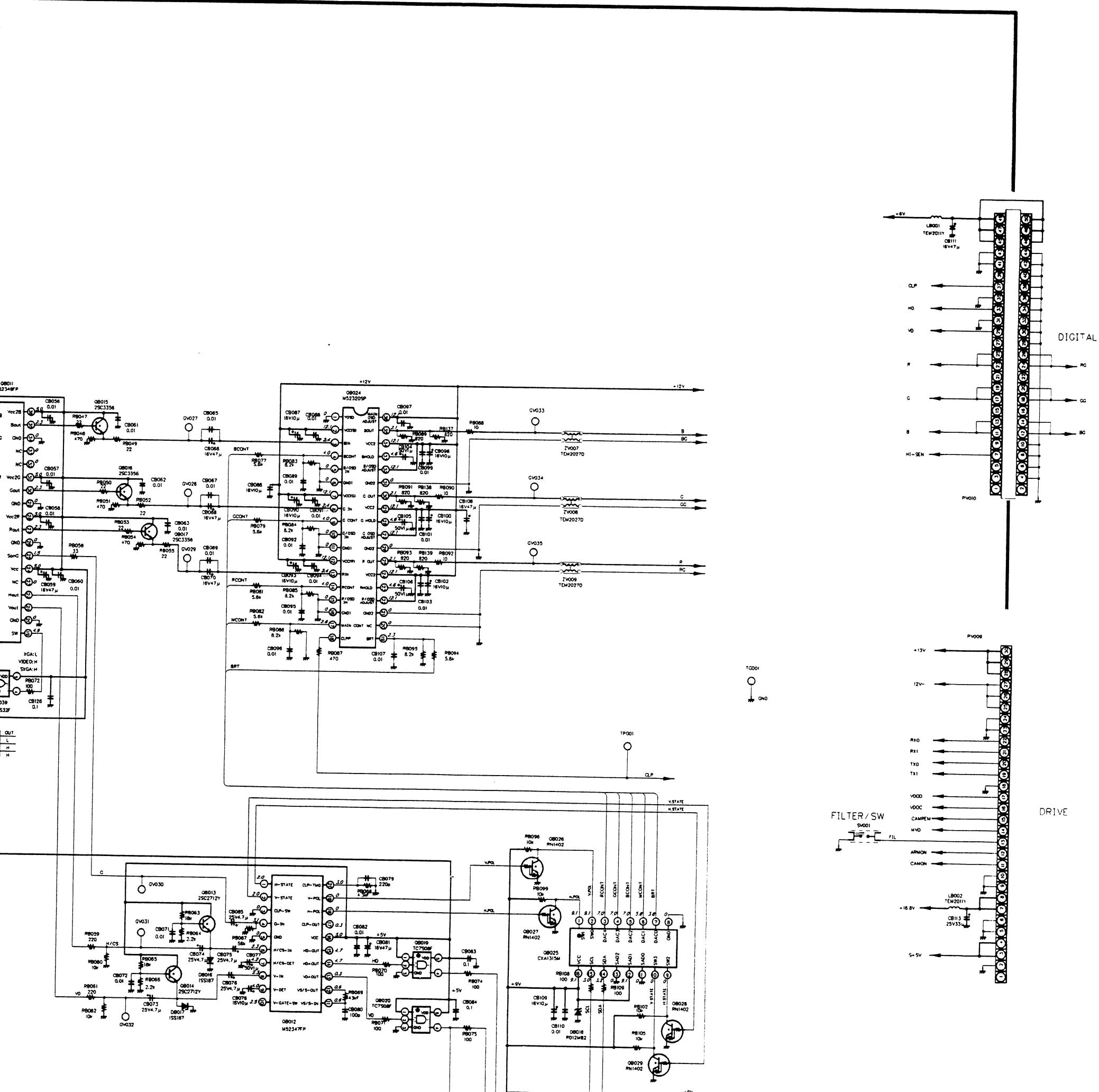
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PB7922-1 VIDEO

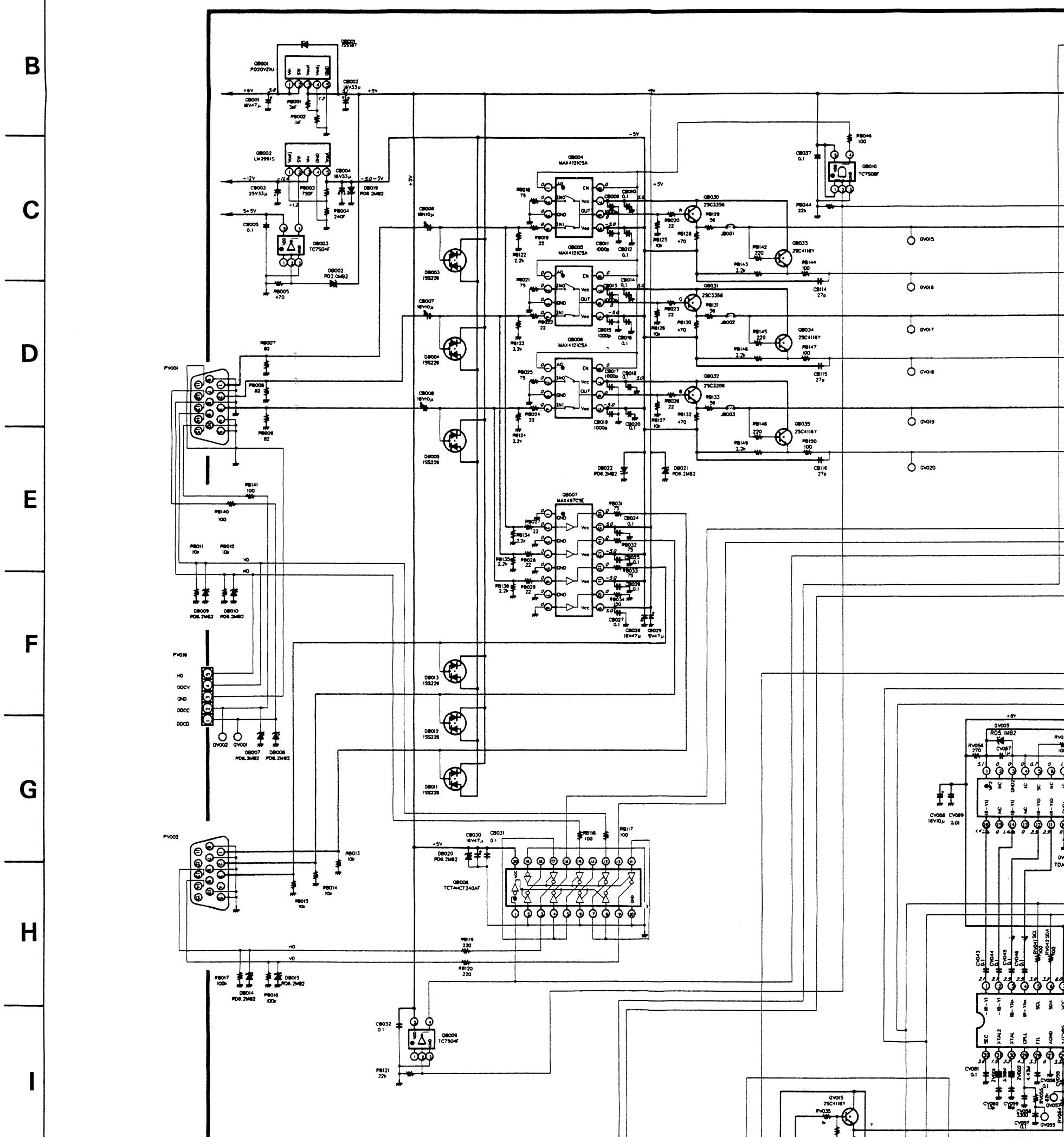




1 2 3 4 5 6 7

4. CIRCUIT DIAGRAMS

4-1. Video/Audio Circuit Diagram



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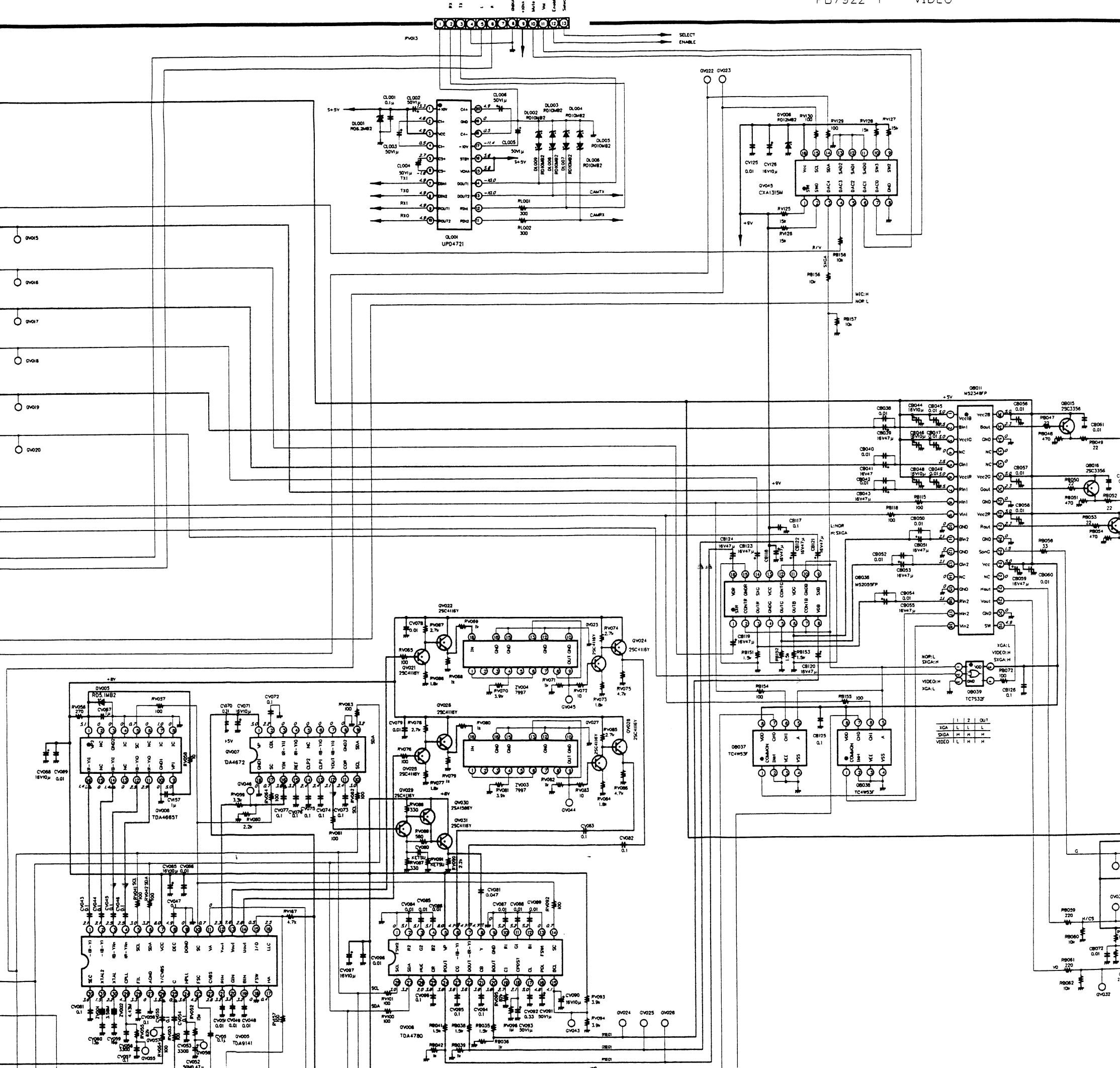
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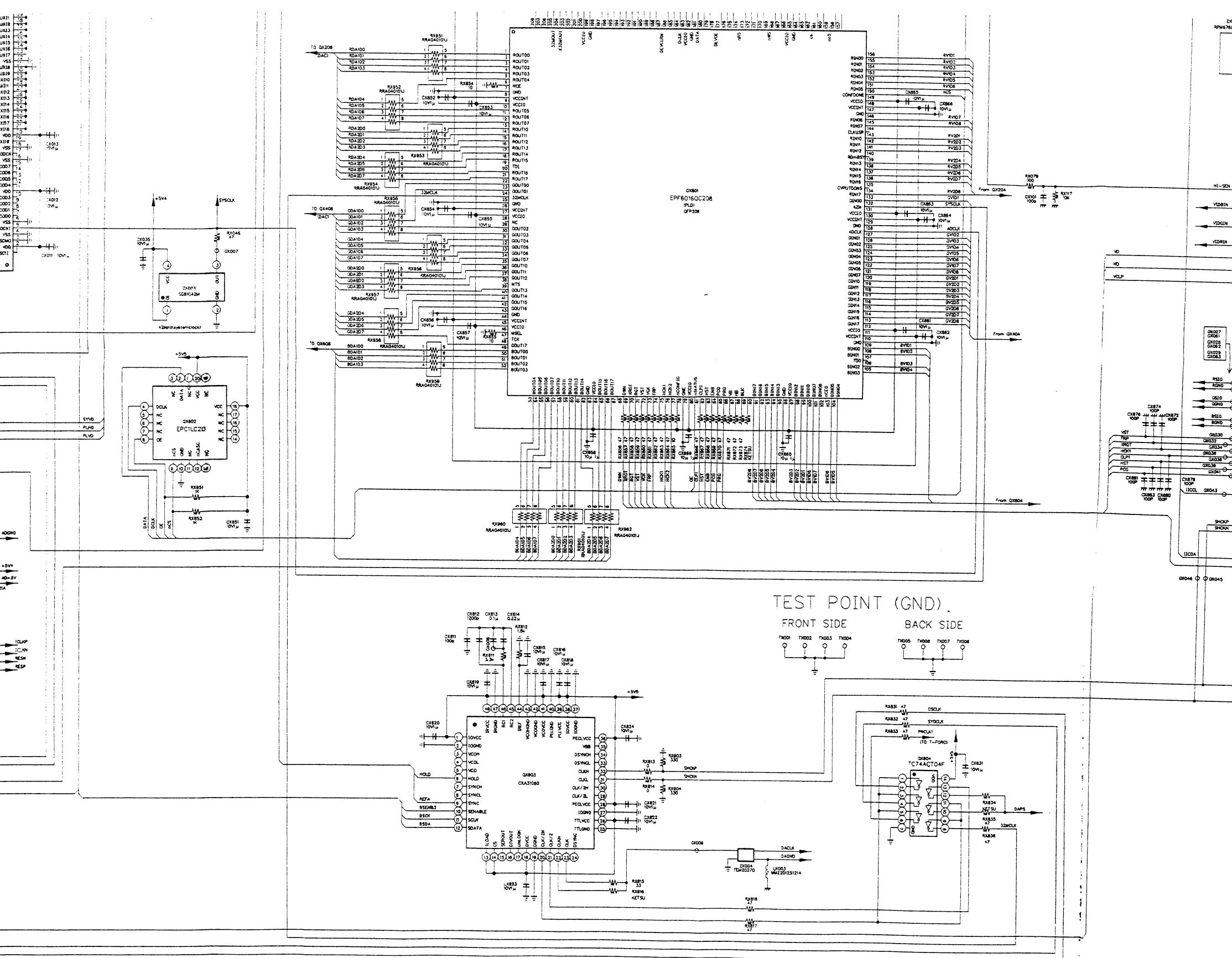
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PB7922-1 VIDEO





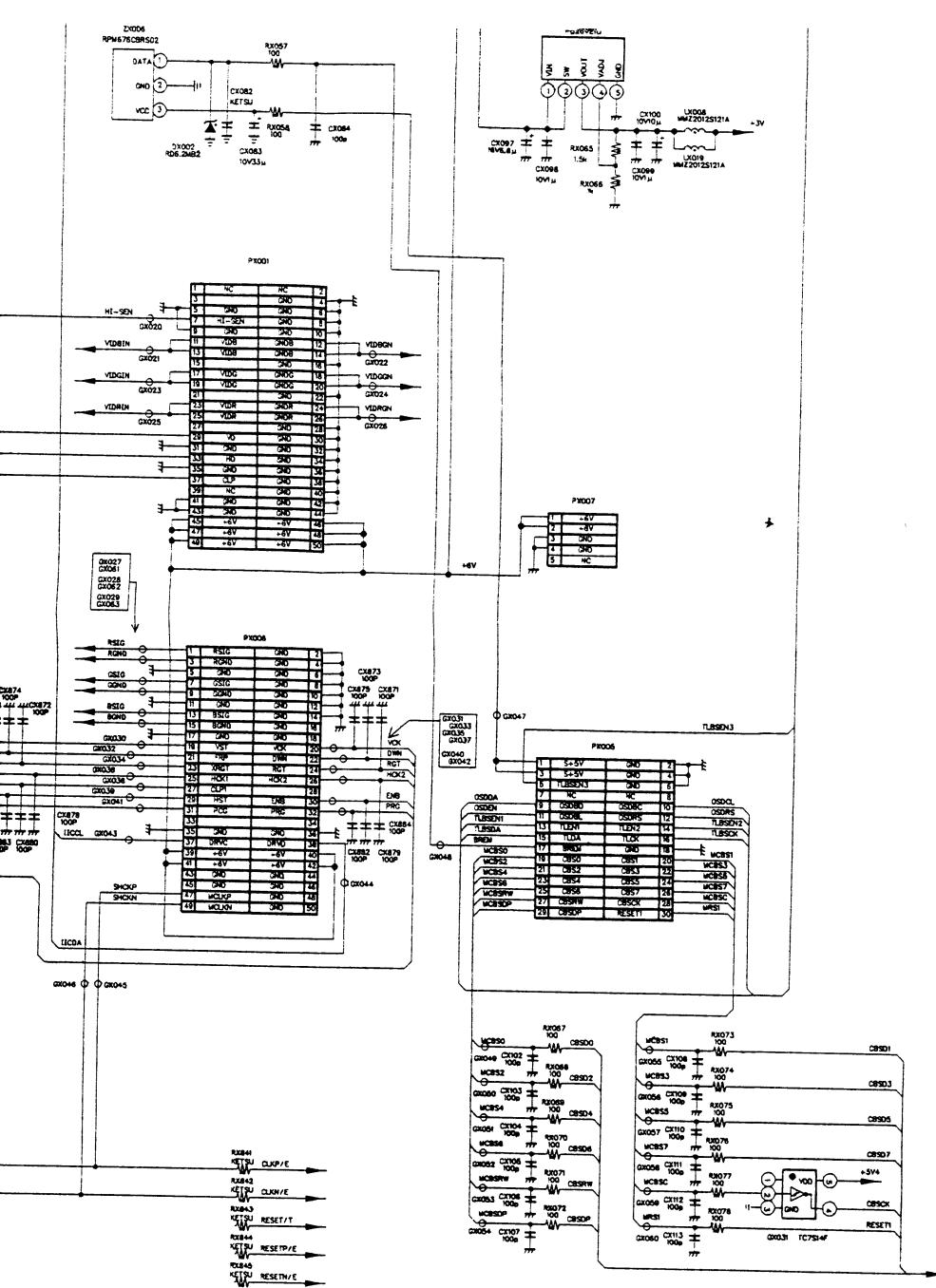


Fig. 2-4-2

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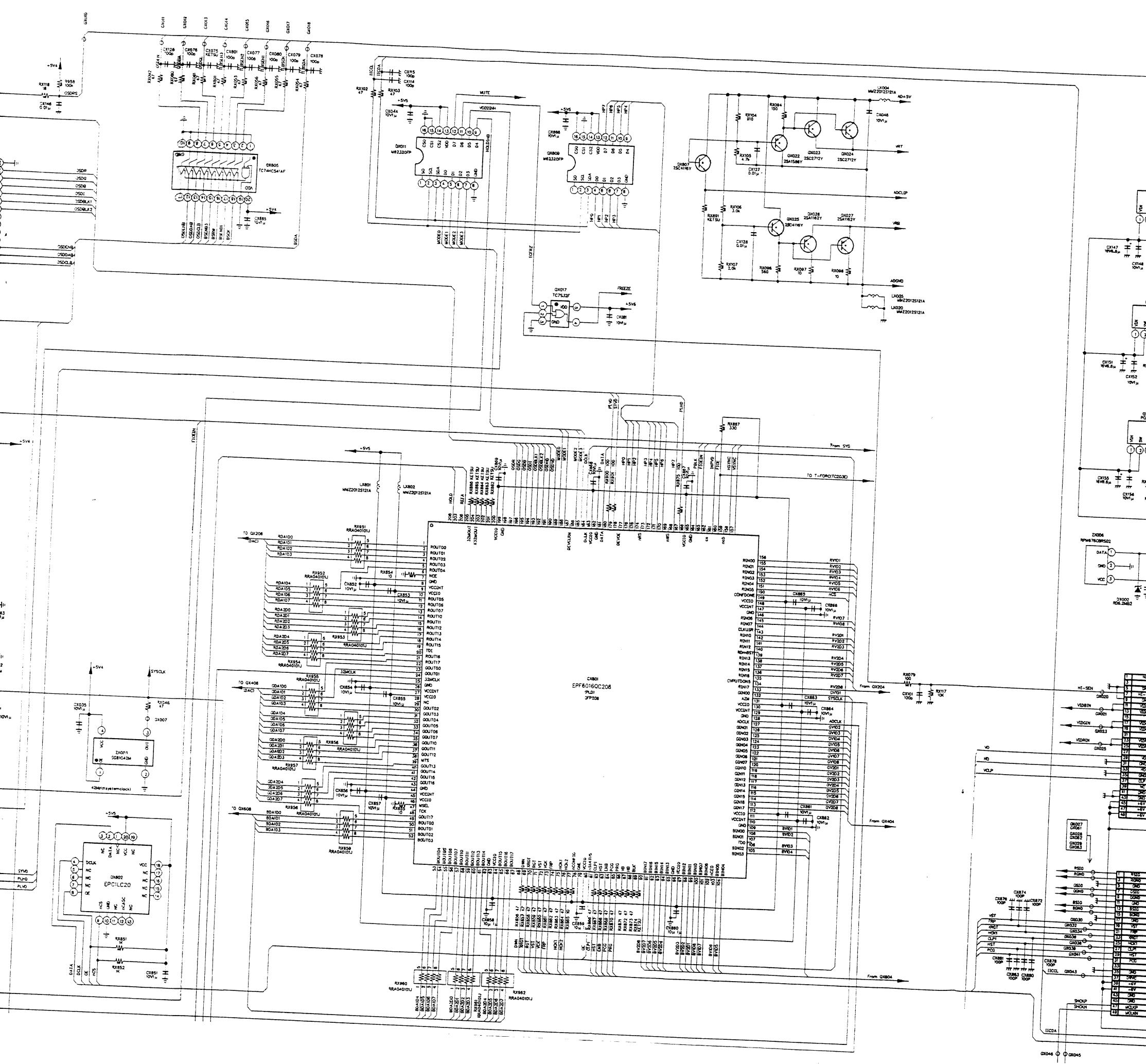
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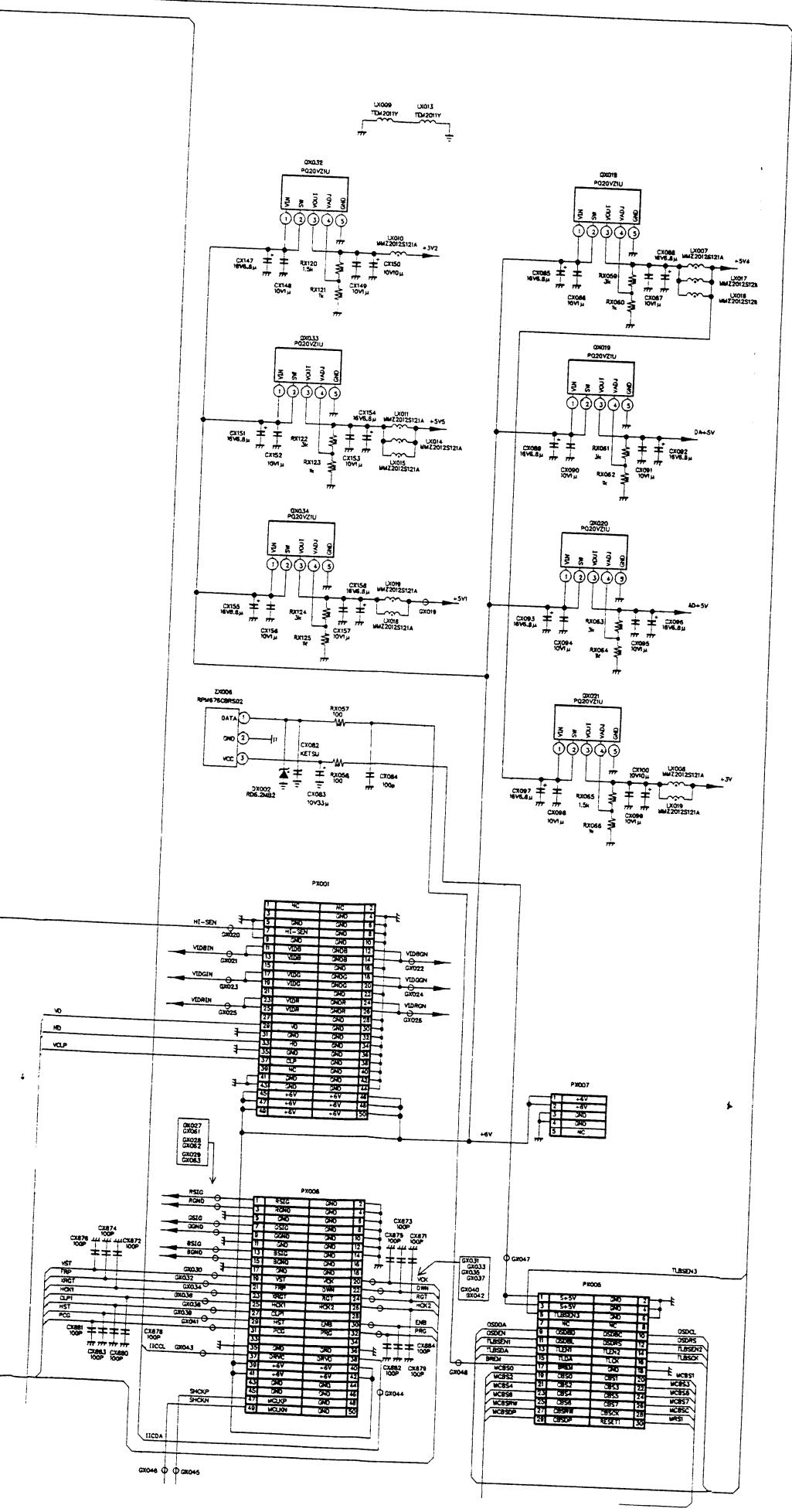
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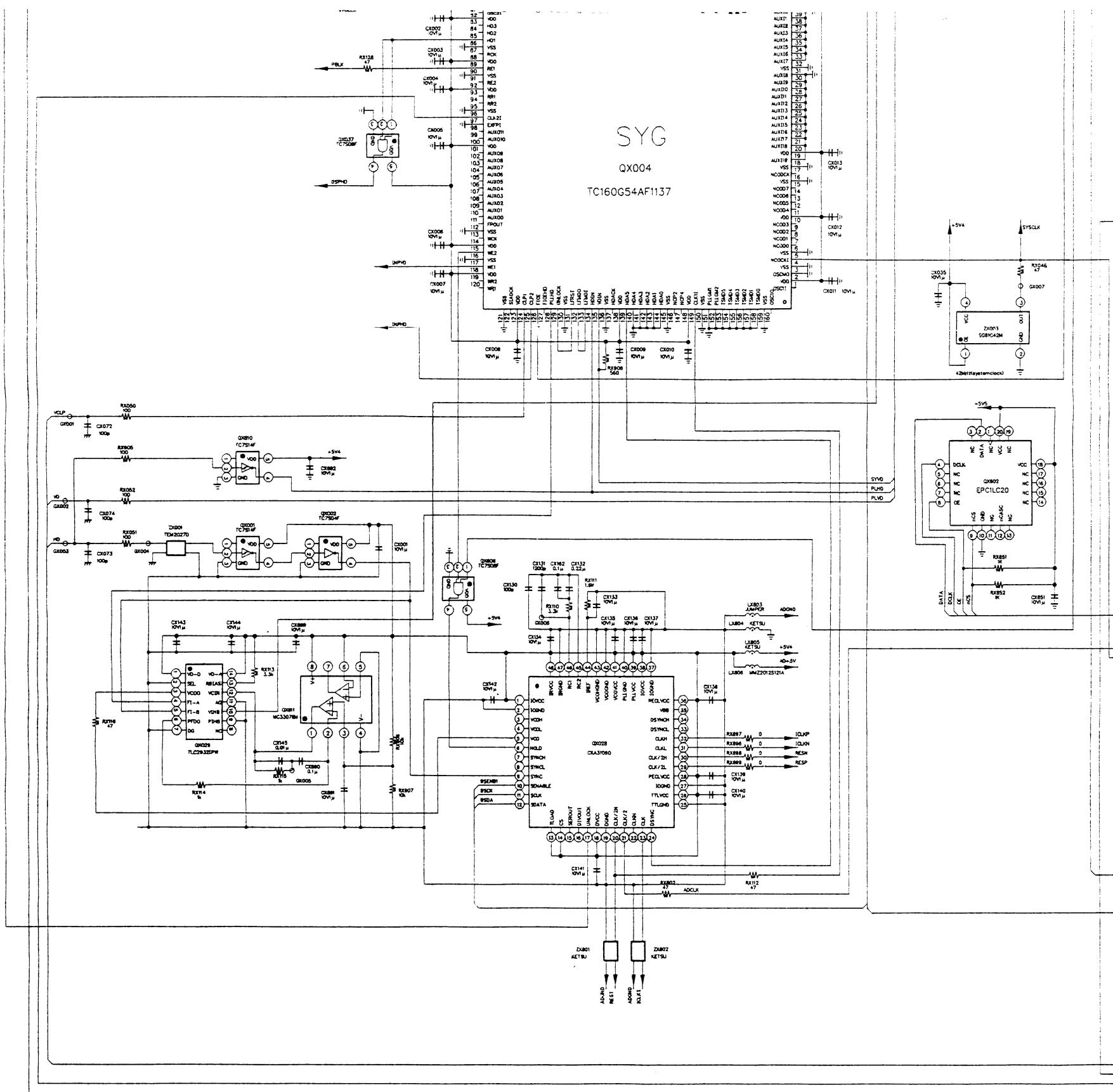
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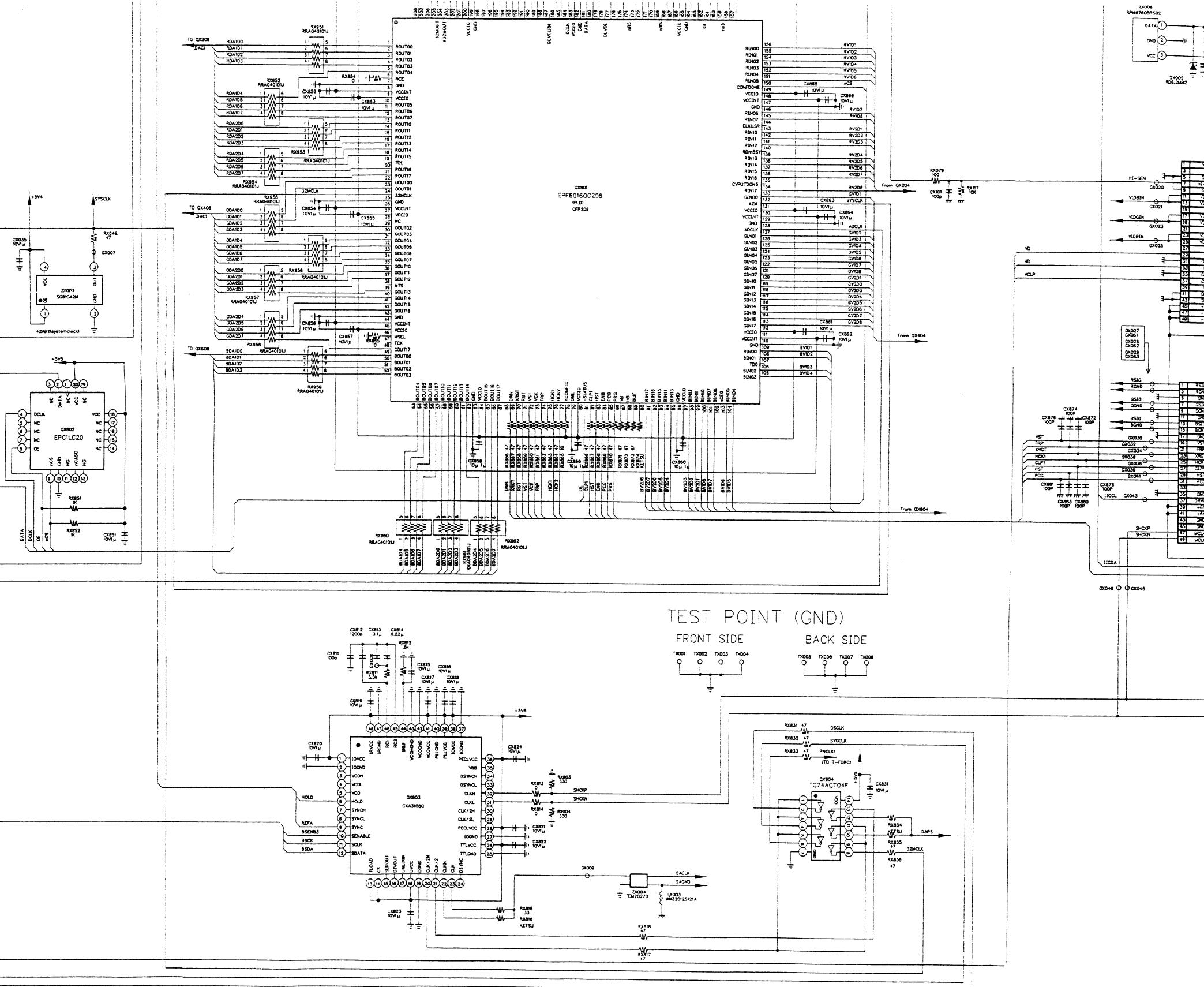
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B

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4-2. Digital (Common) Circuit Diagram

A

B

C

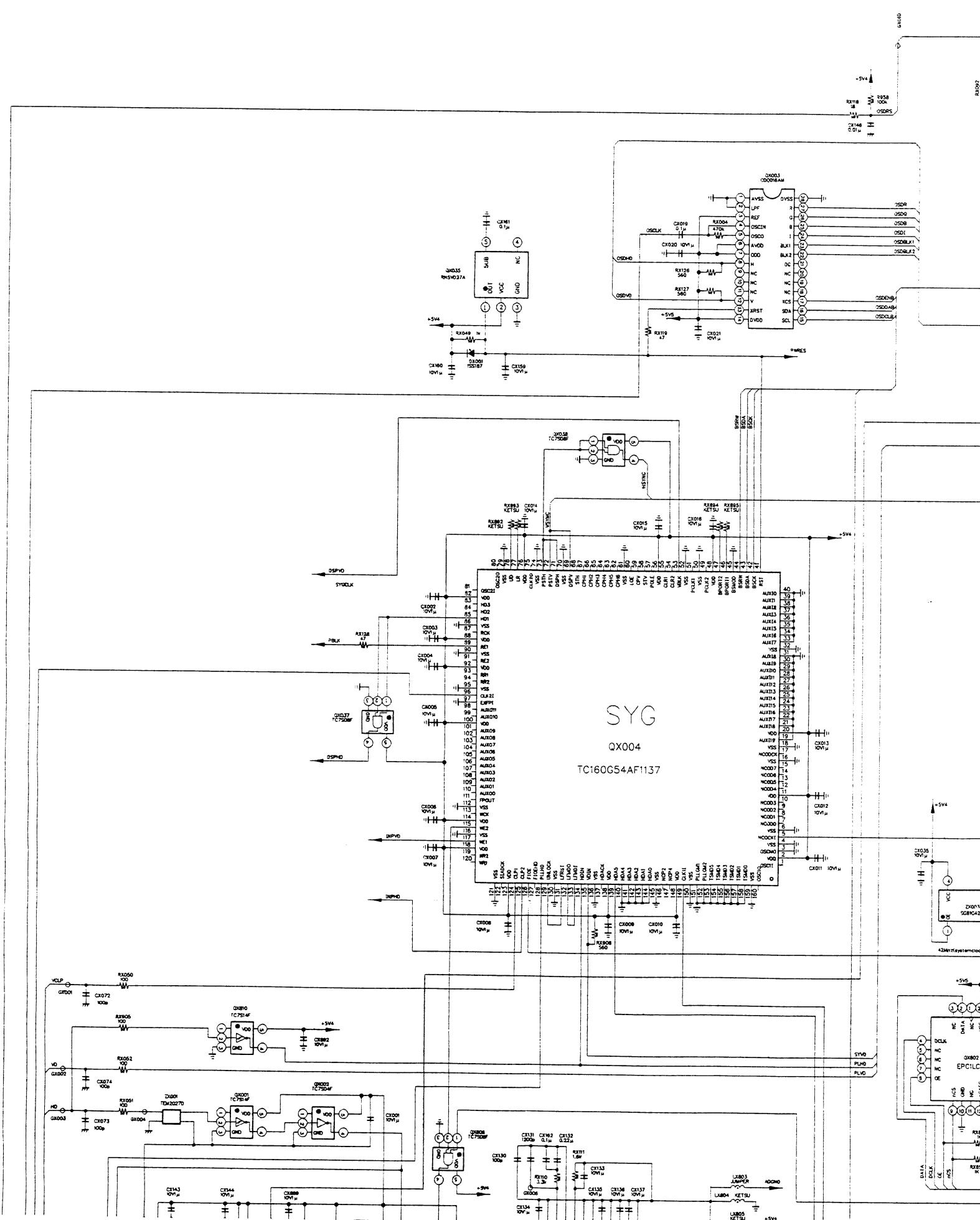
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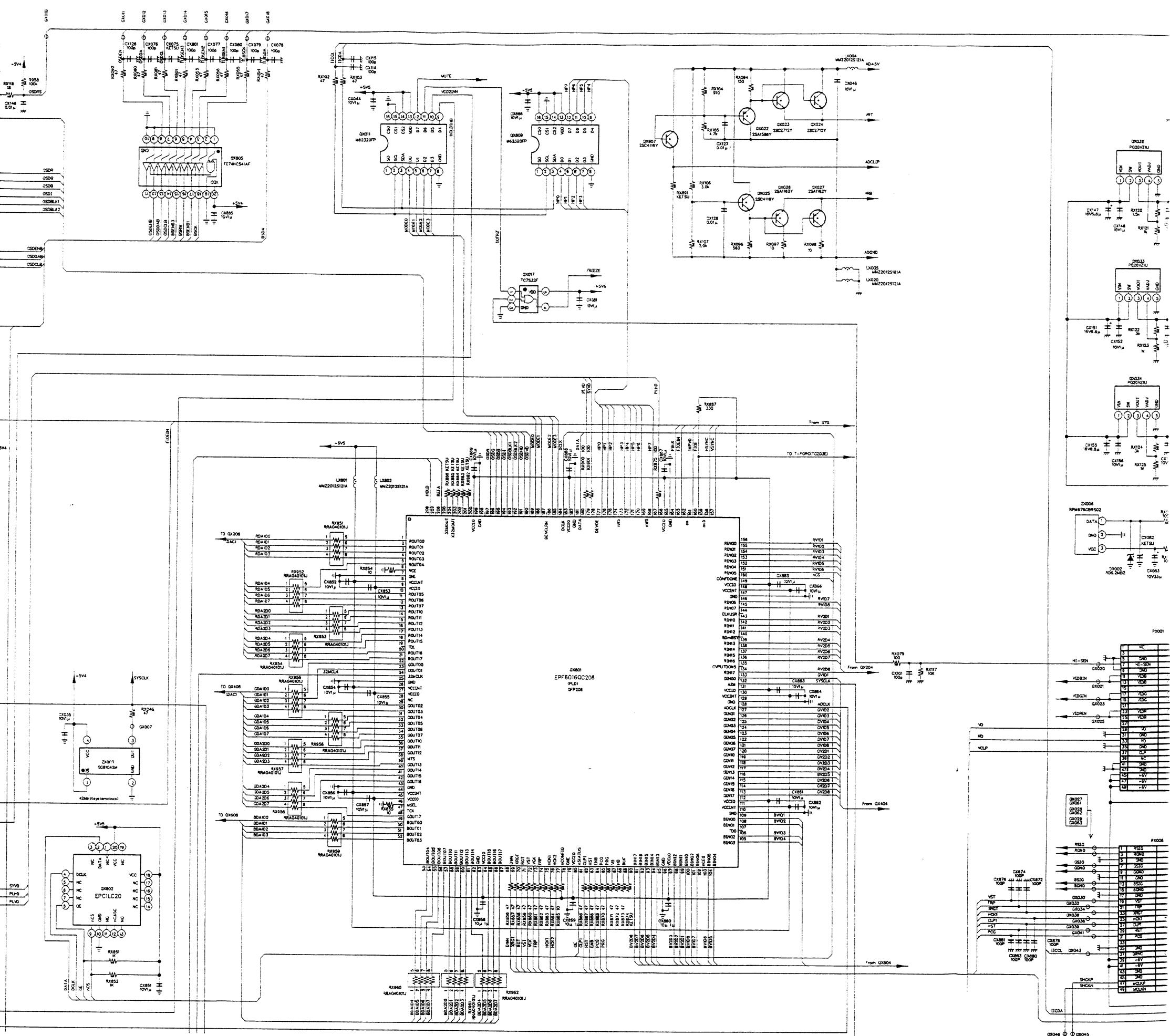
E

F

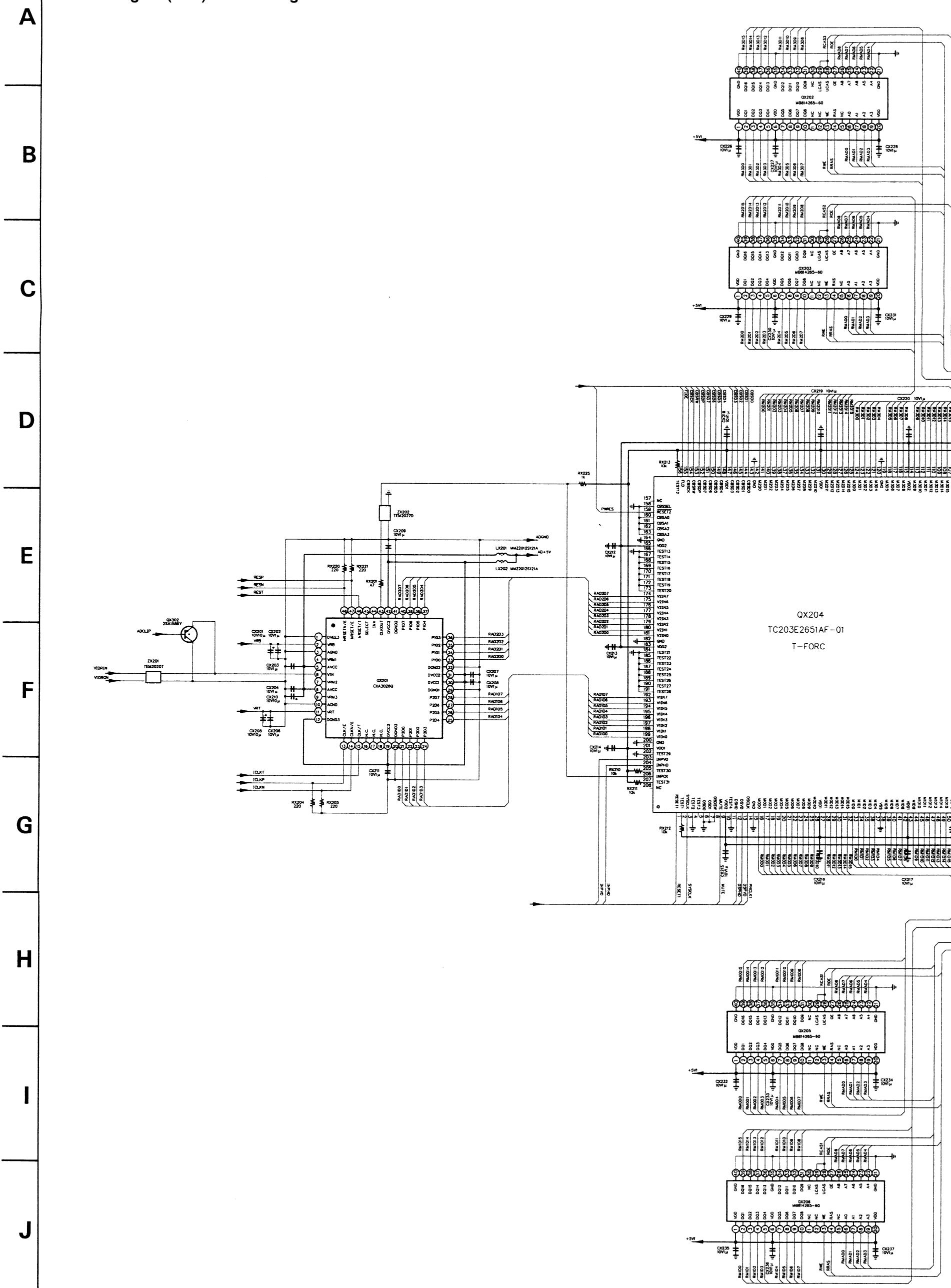
G

H





4-3. Digital (Rch) Circuit Diagram



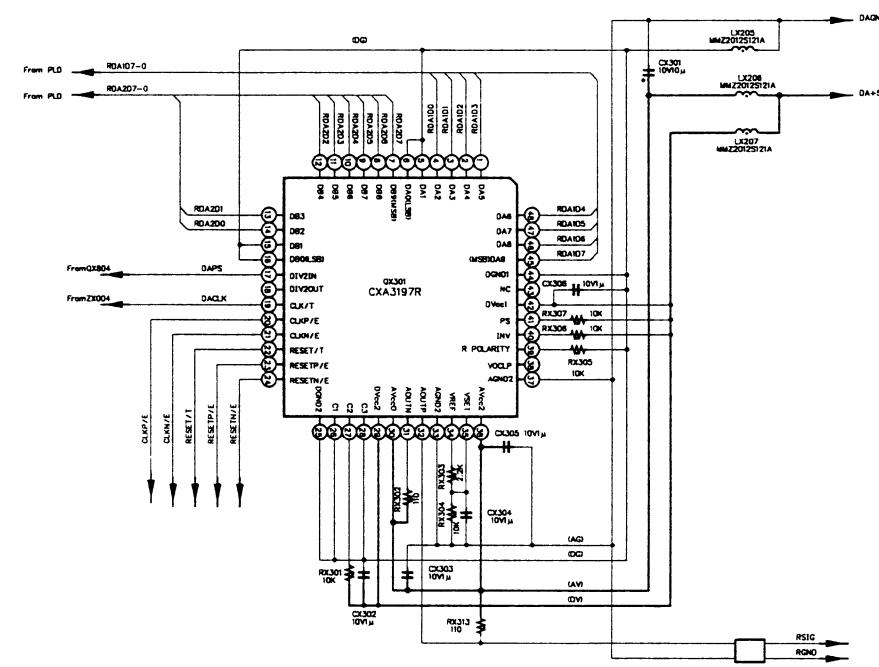
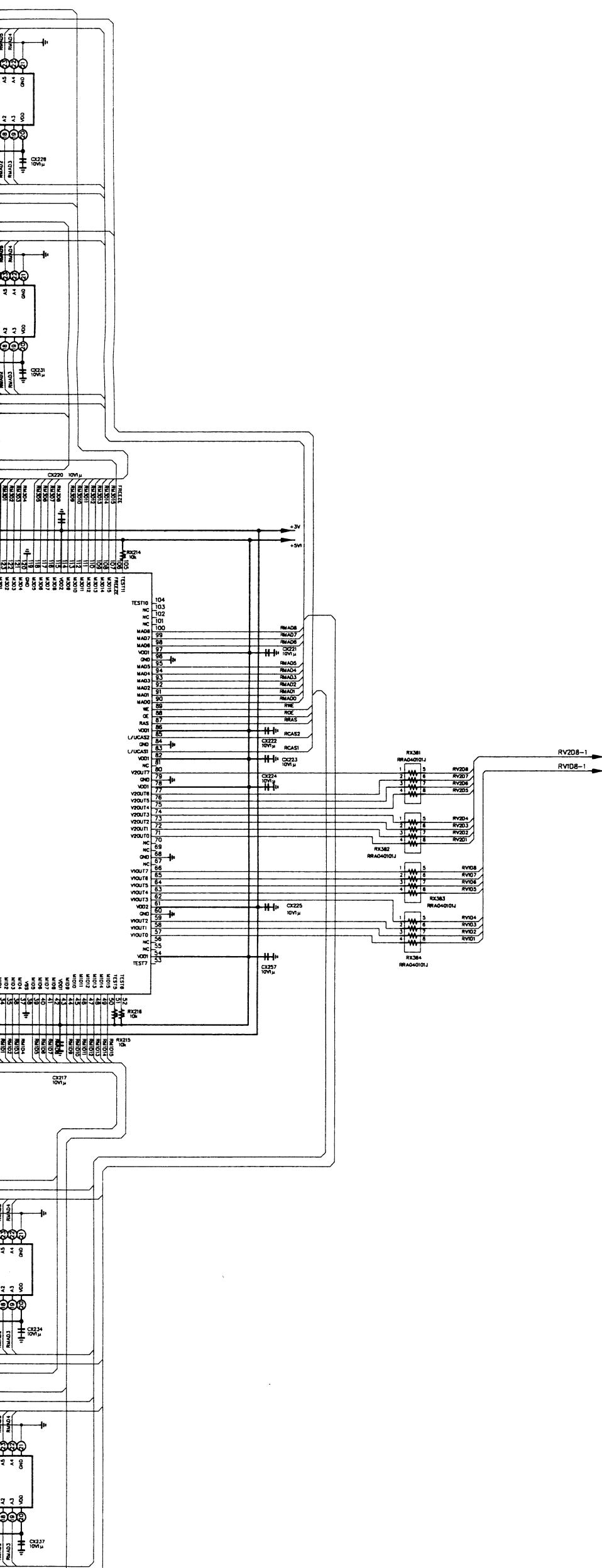


Fig. 2-4-3

4-4. Digital (Gch) Circuit Diagram

A

B

C

D

E

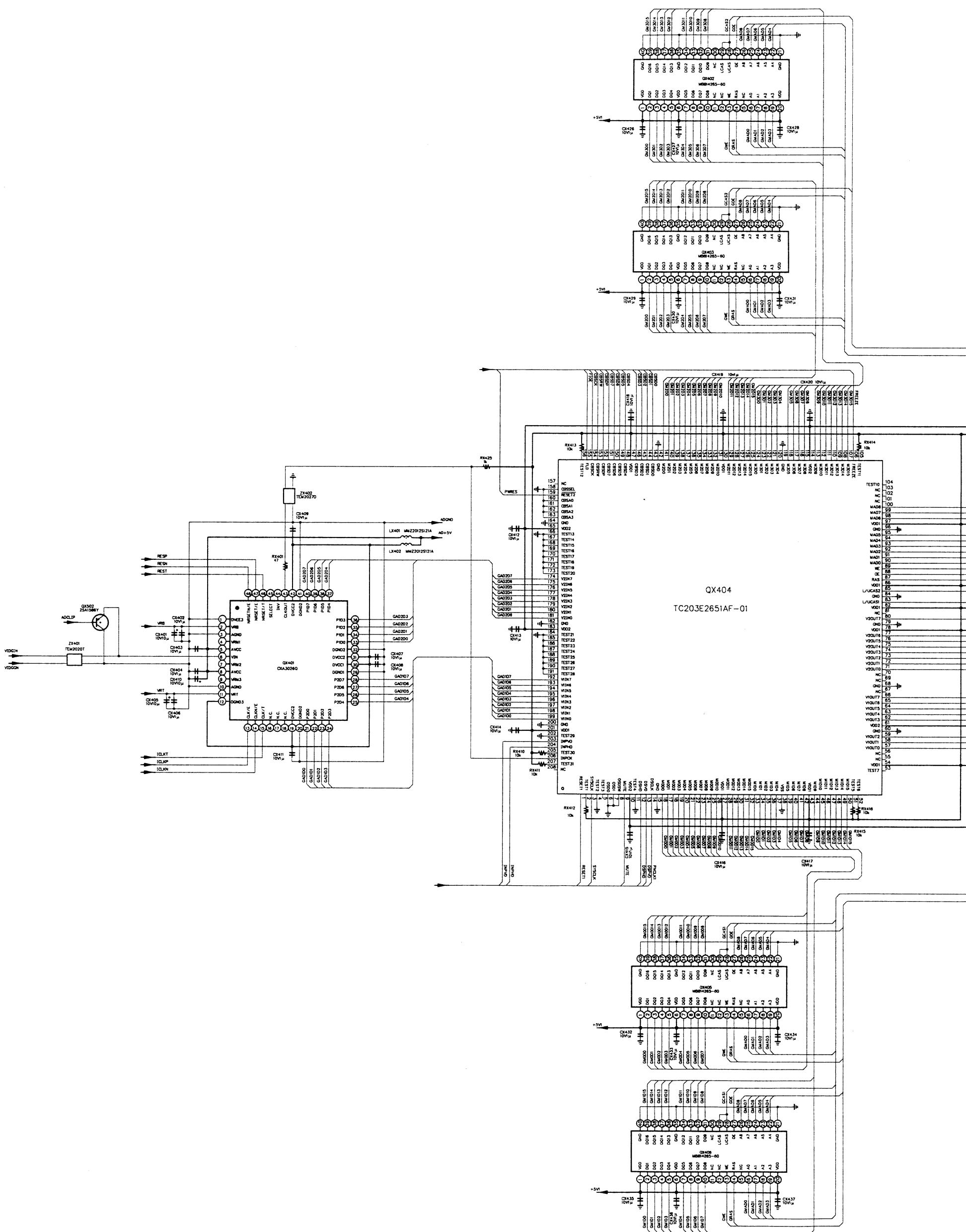
F

G

E

F

G



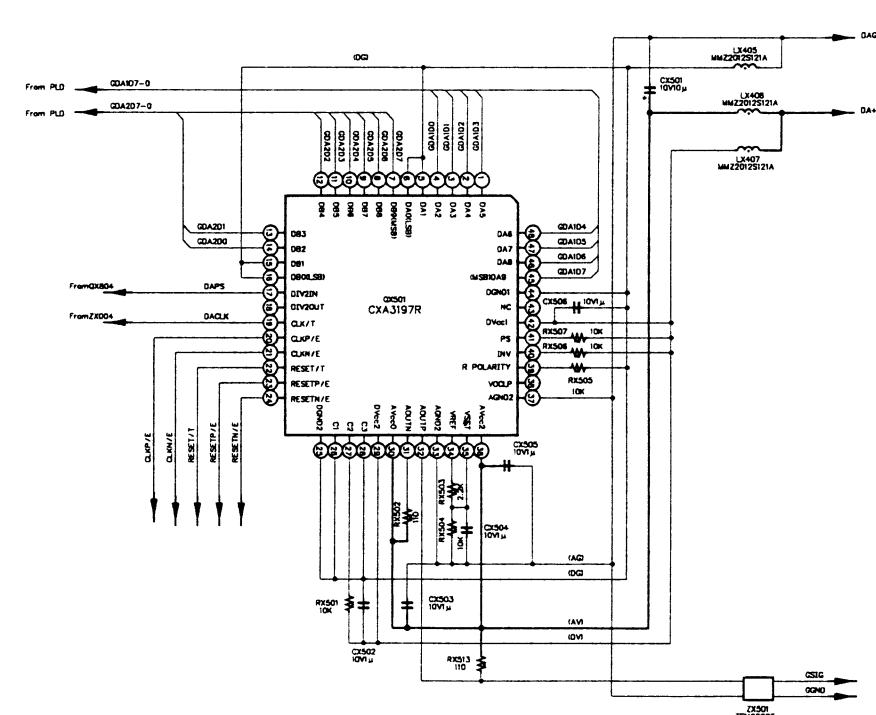
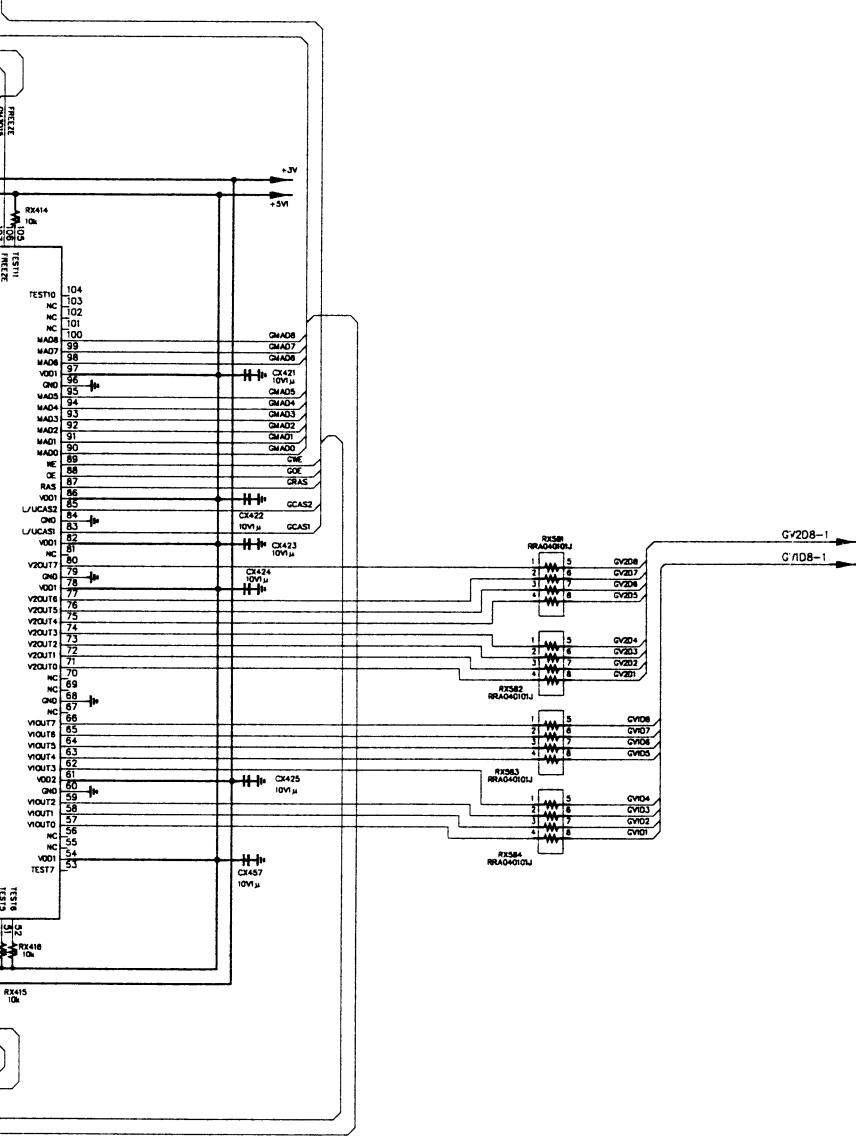
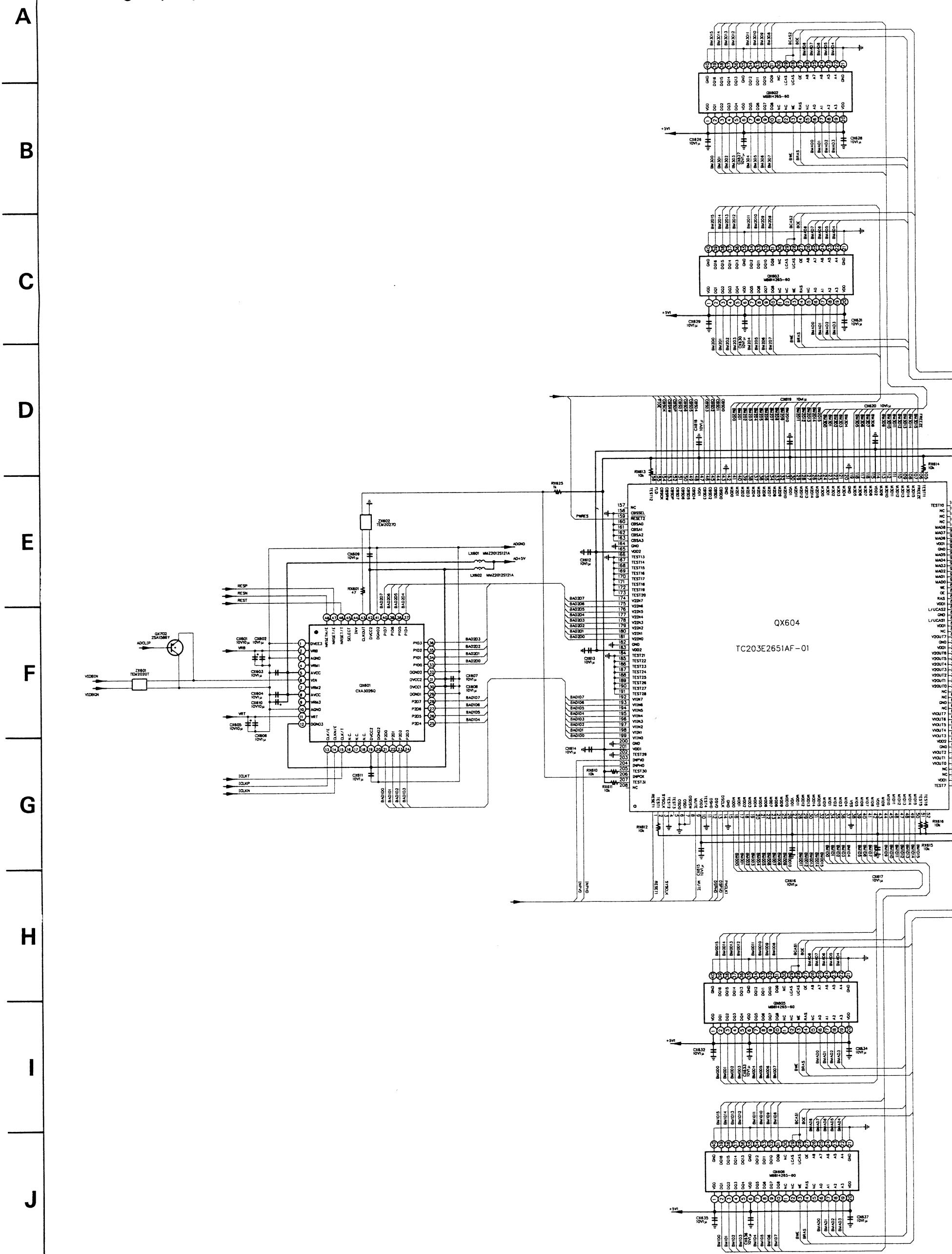


Fig. 2

4-5. Digital (Bch) Circuit Diagram



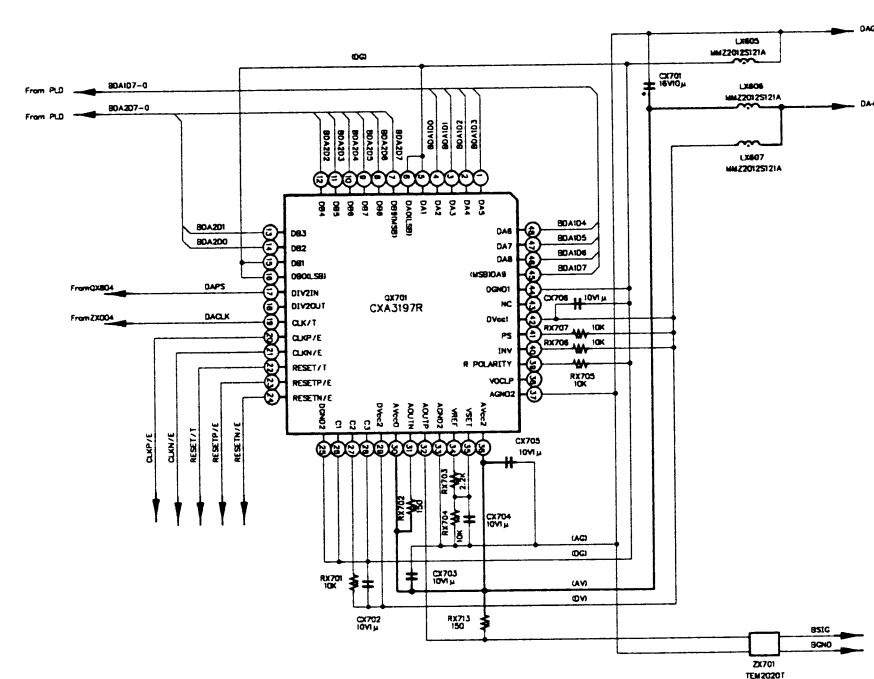
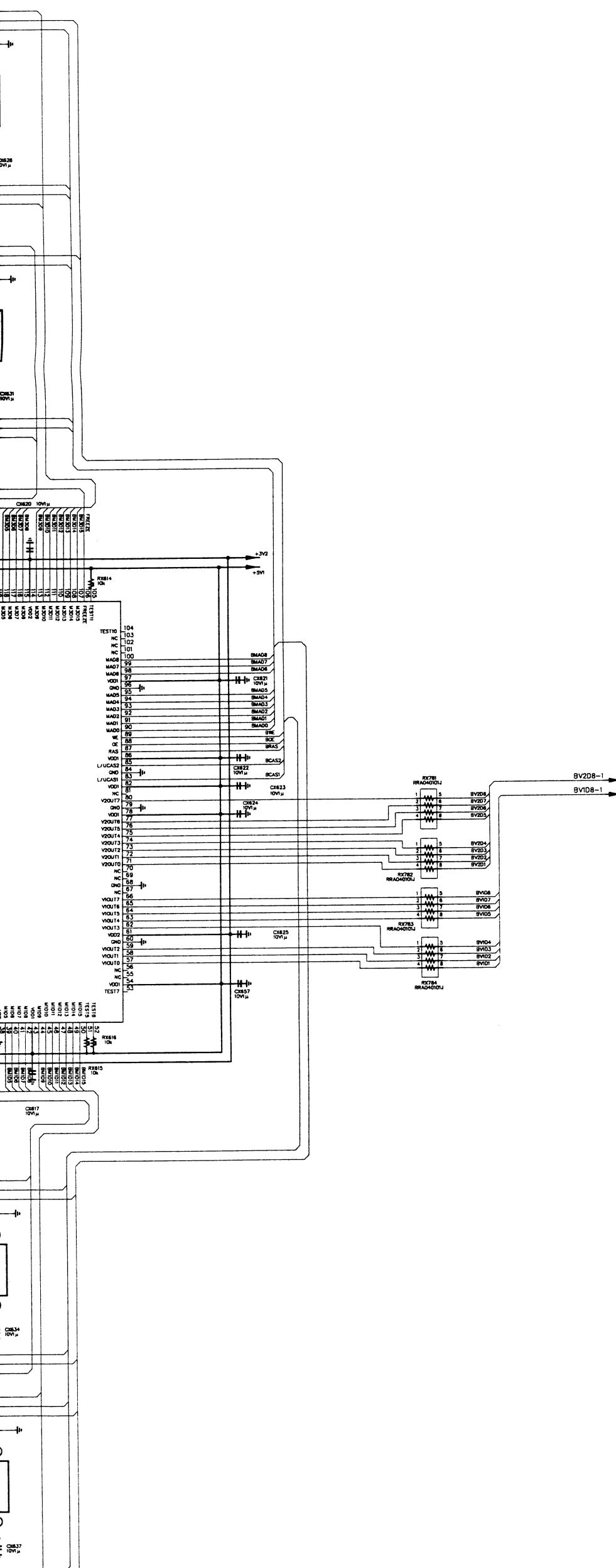
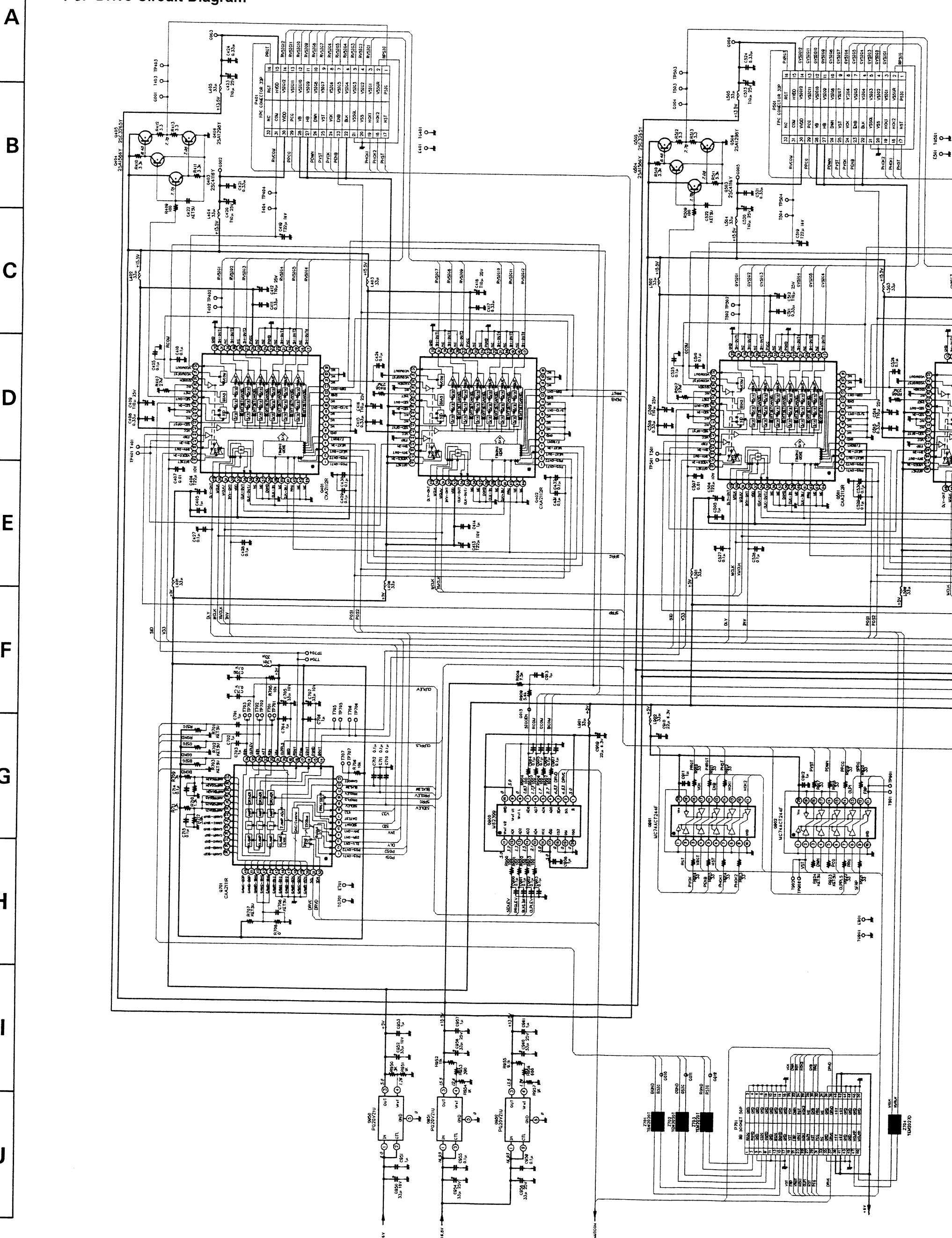


Fig. 2-4-5

1 2 3 4 5 6 7 8

4-6. Drive Circuit Diagram



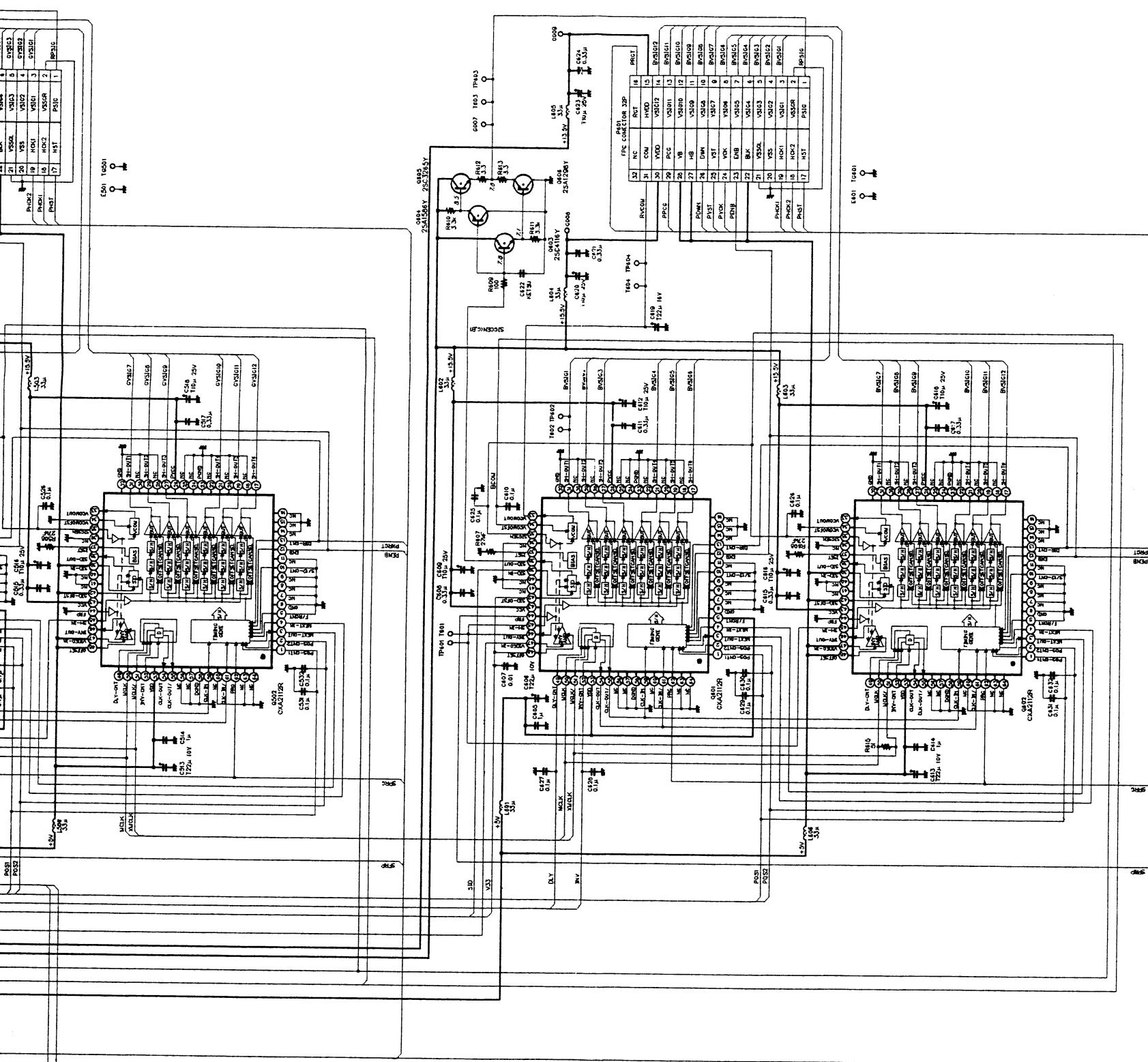
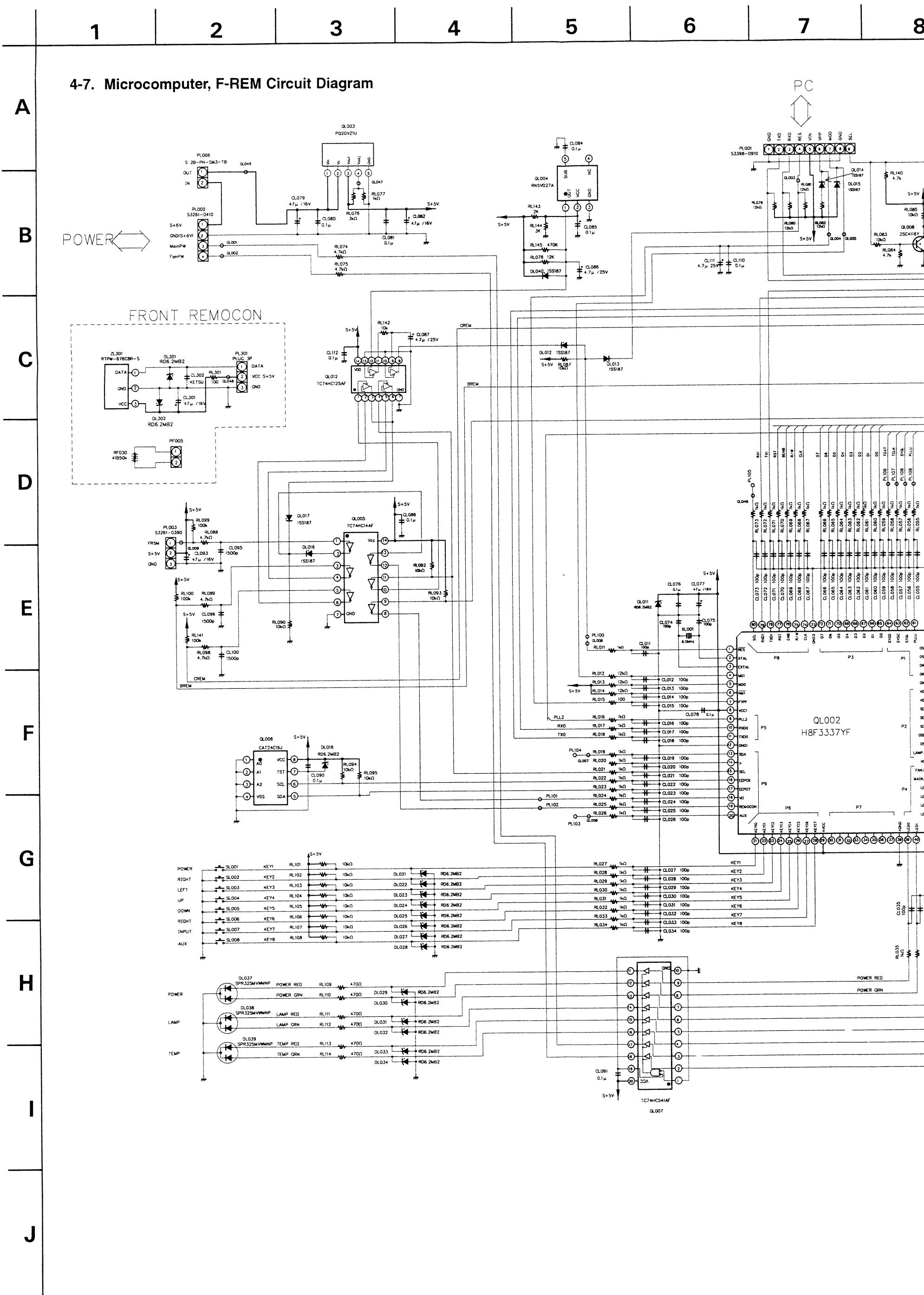
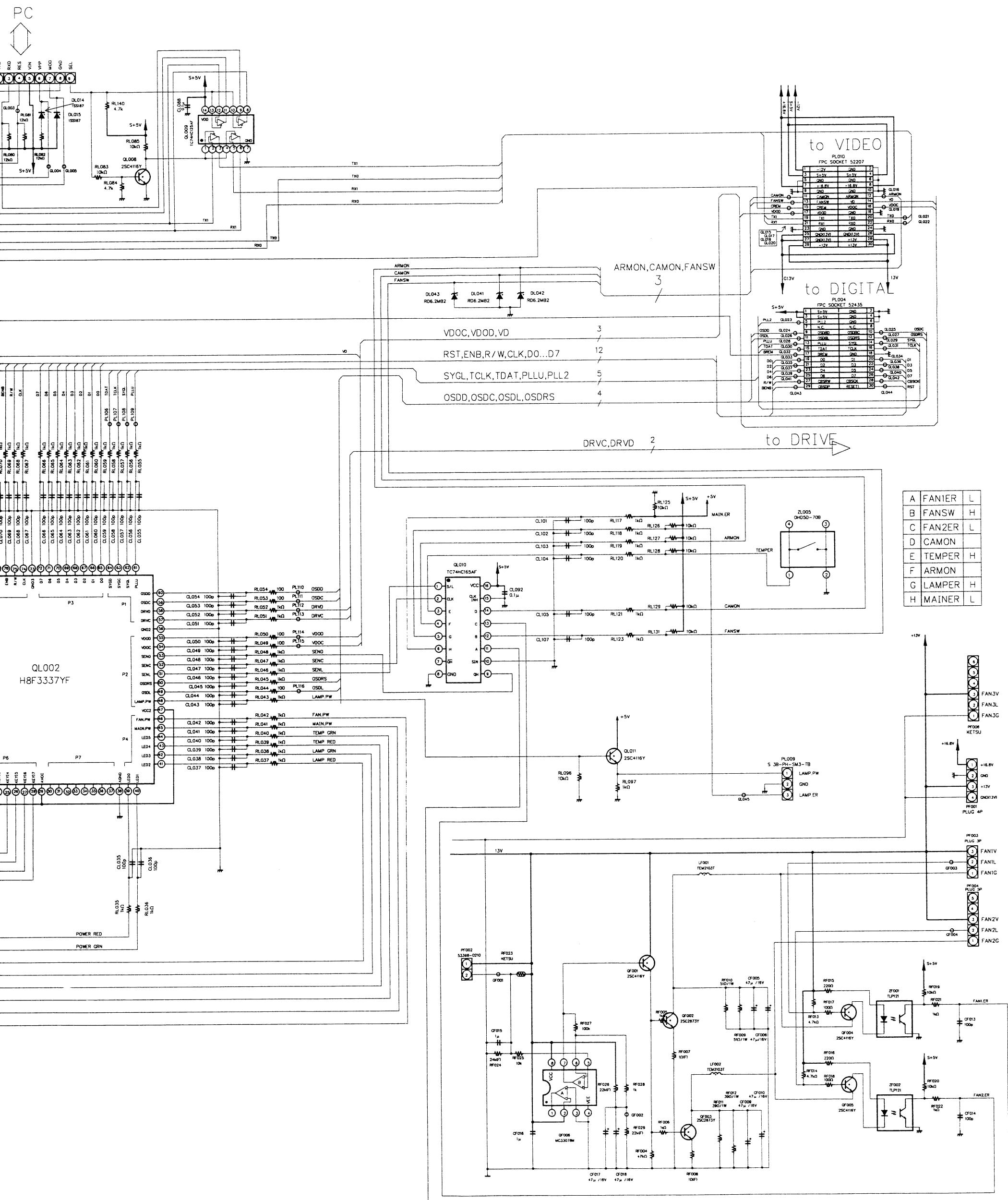


Fig. 2.

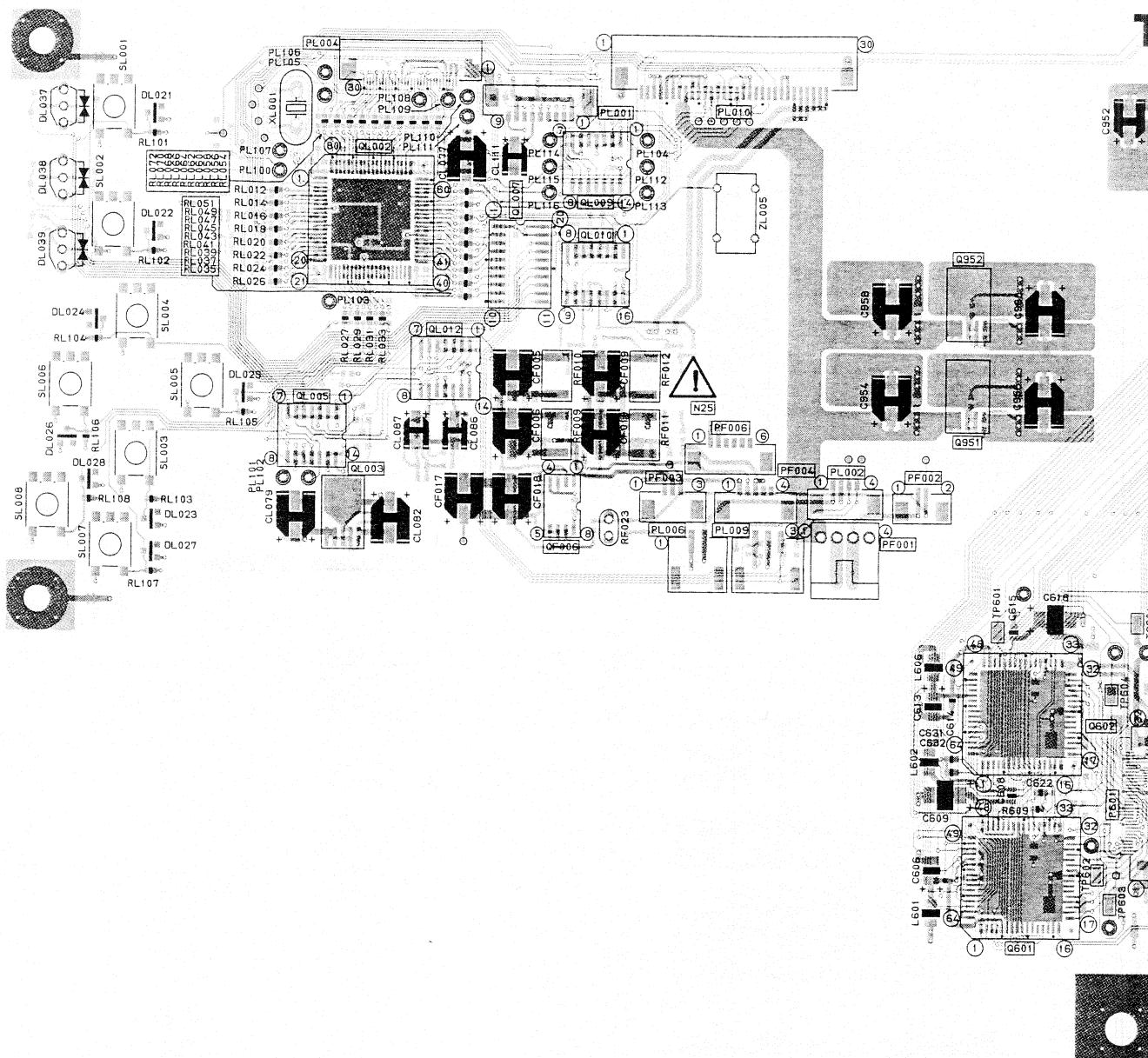
4-7. Microcomputer, F-REM Circuit Diagram

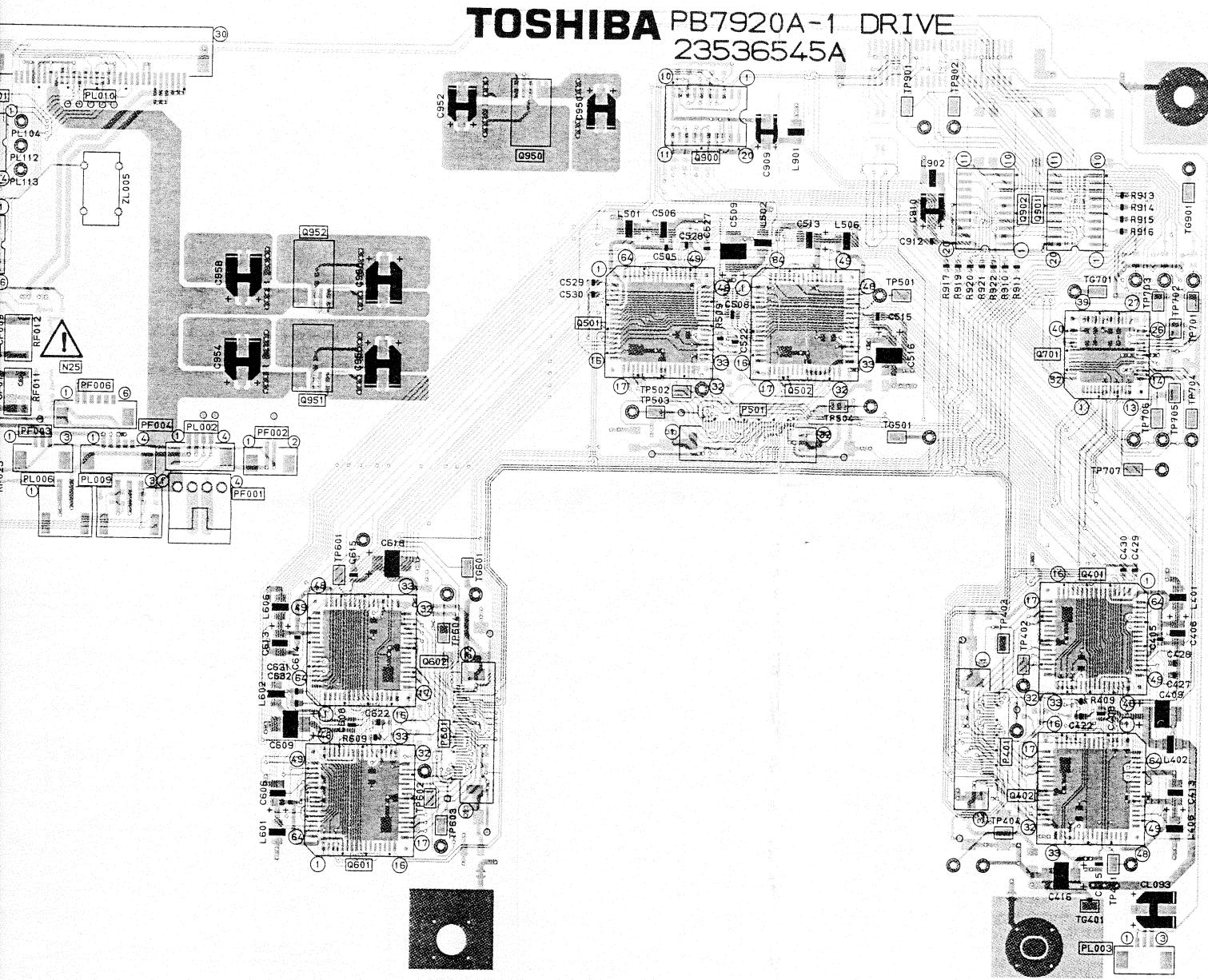




5. PC BOARDS

5-1. Drive PC Board

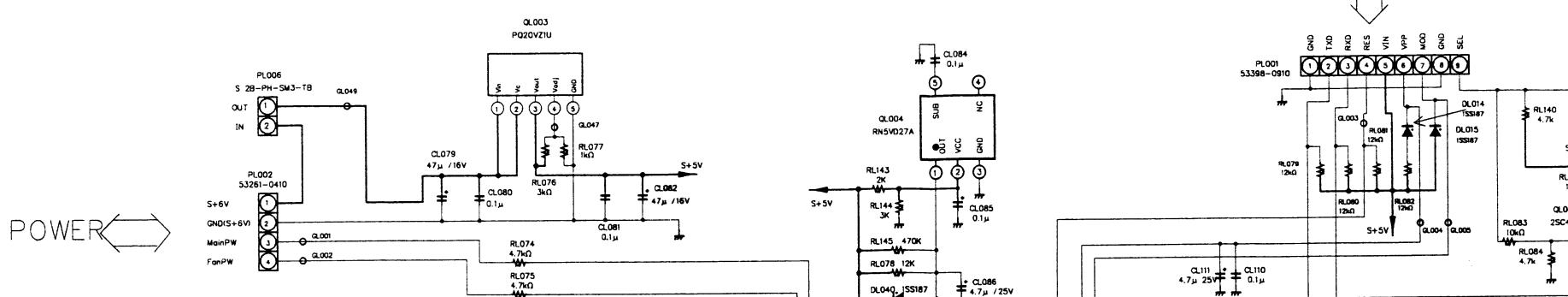




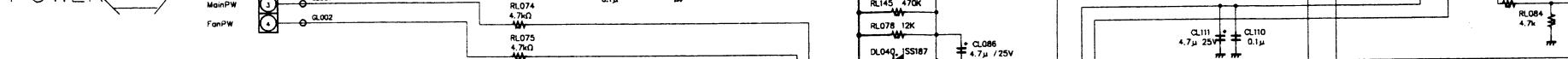
1 2 3 4 5 6 7

4-7. Microcomputer, F-REM Circuit Diagram

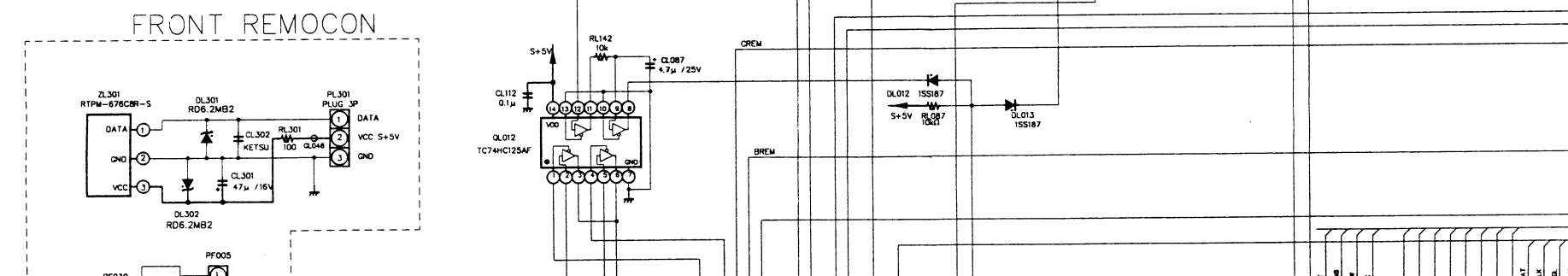
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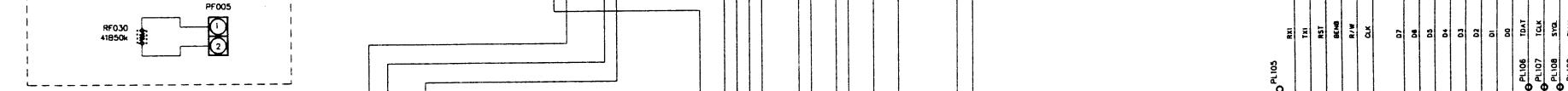
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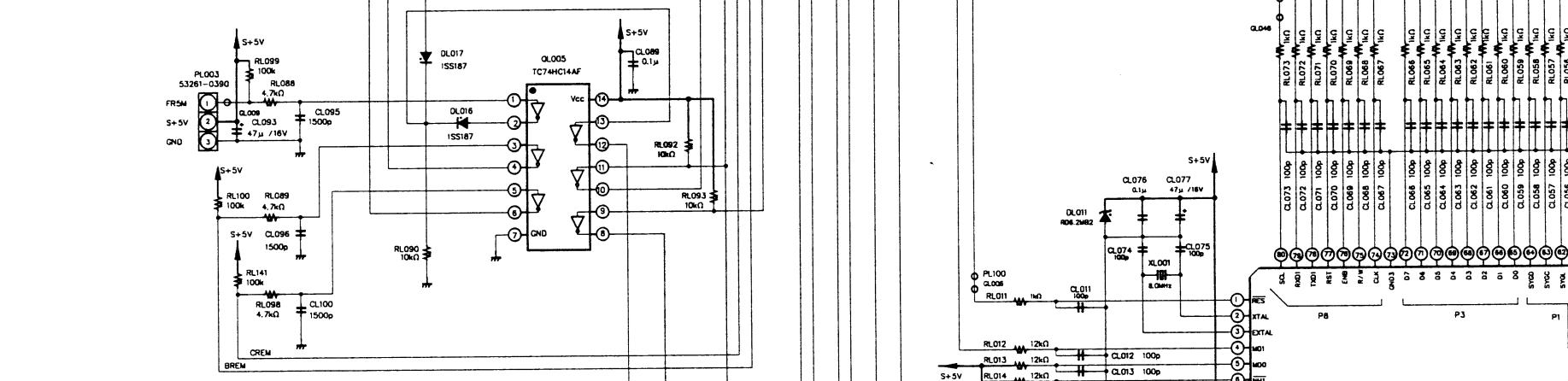
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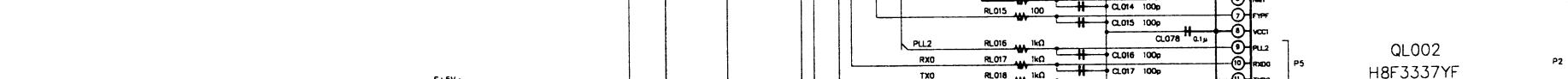
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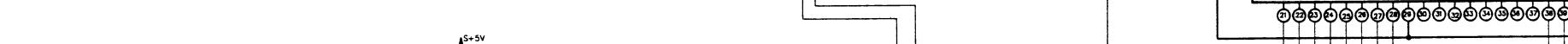
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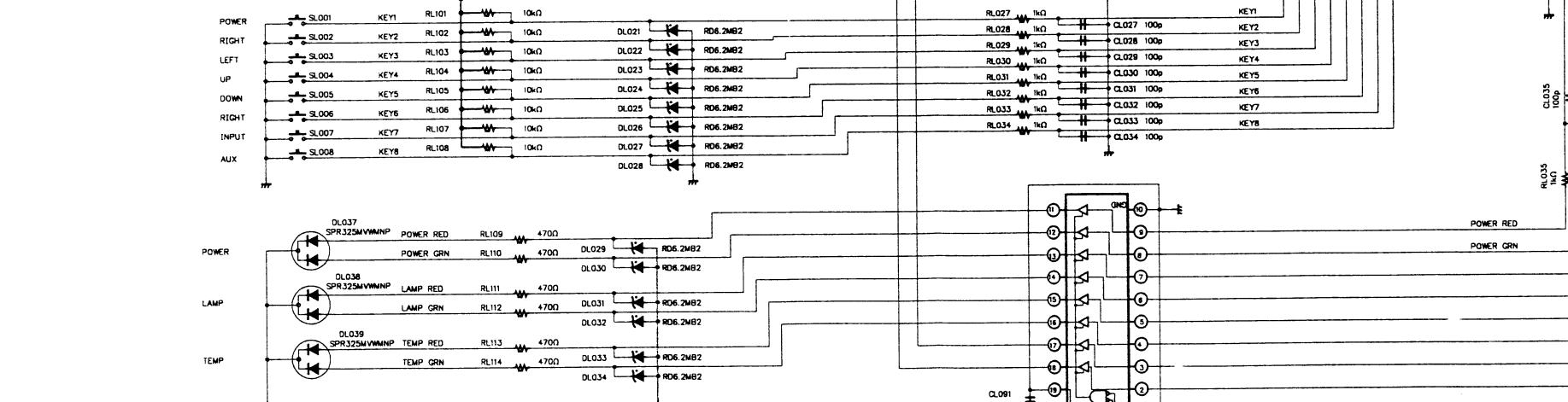
F



G



H



J

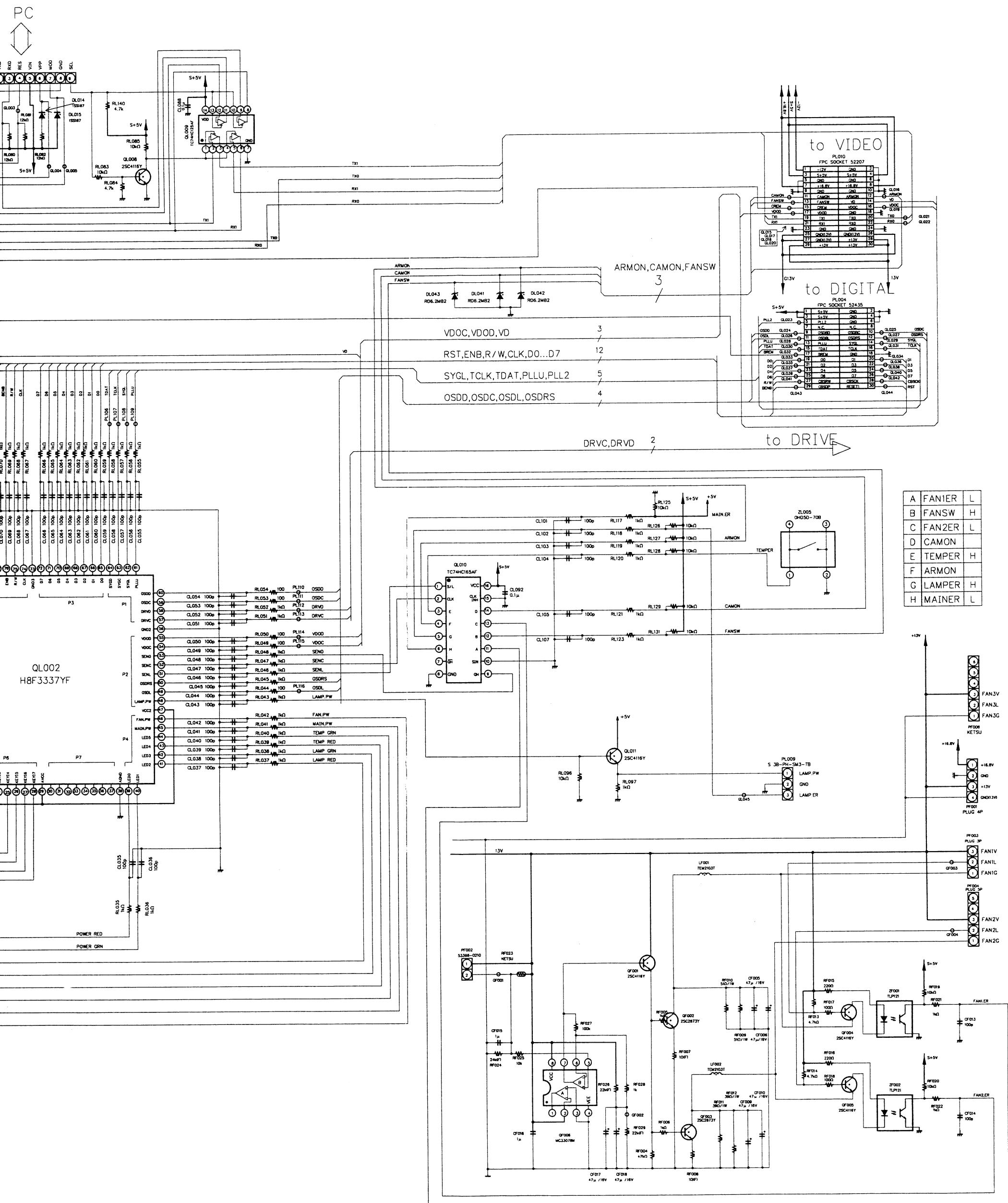


Fig. 2-4-7

5-2. Digital PC Board

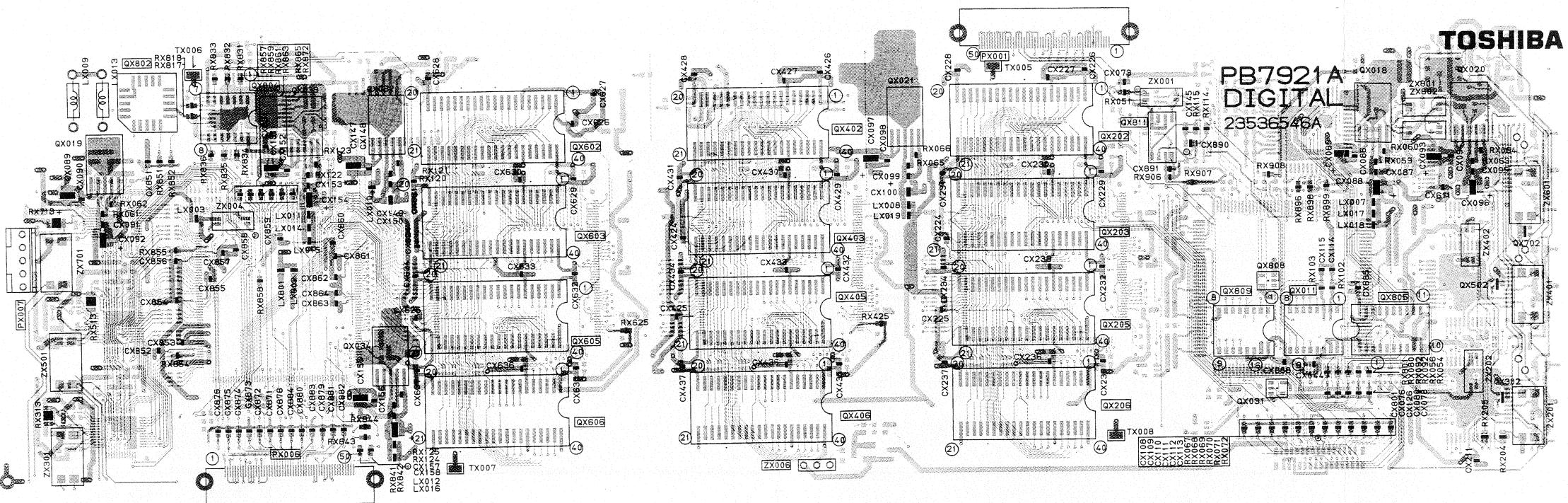


Fig. 2-5-3 U002 Digital PC Board (Top Side)

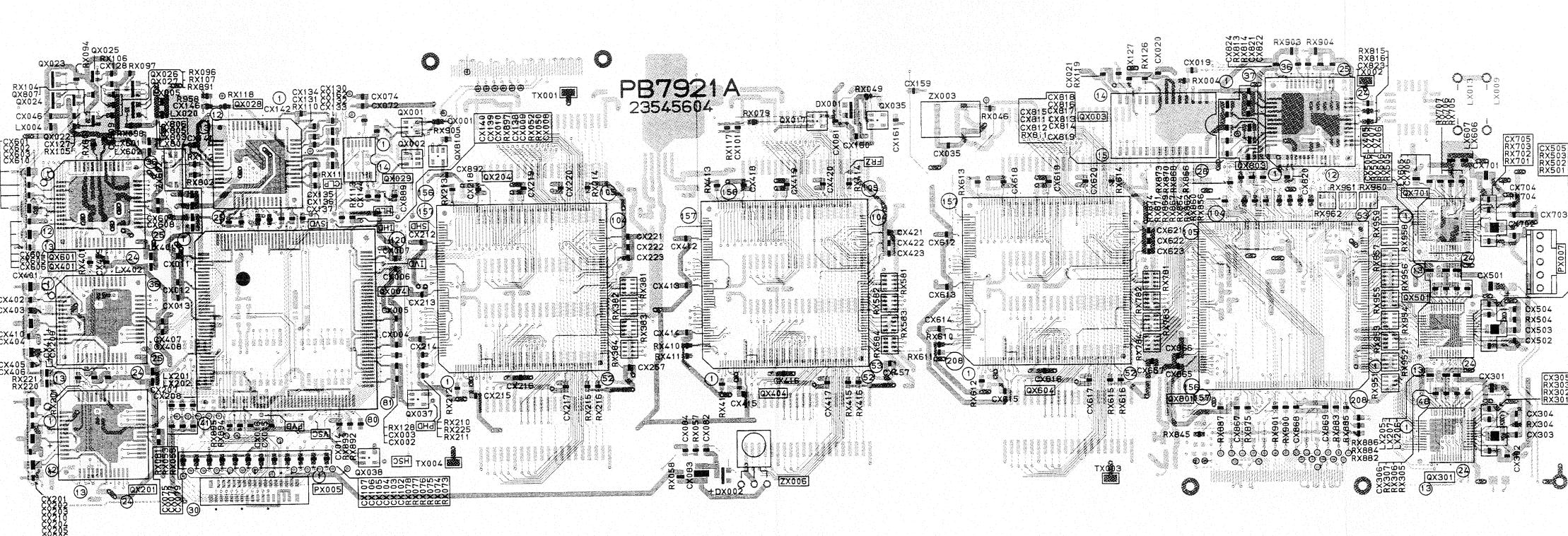


Fig. 2-5-4 U002 Digital PC Board (Bottom Side)

5-3. Video PC Board

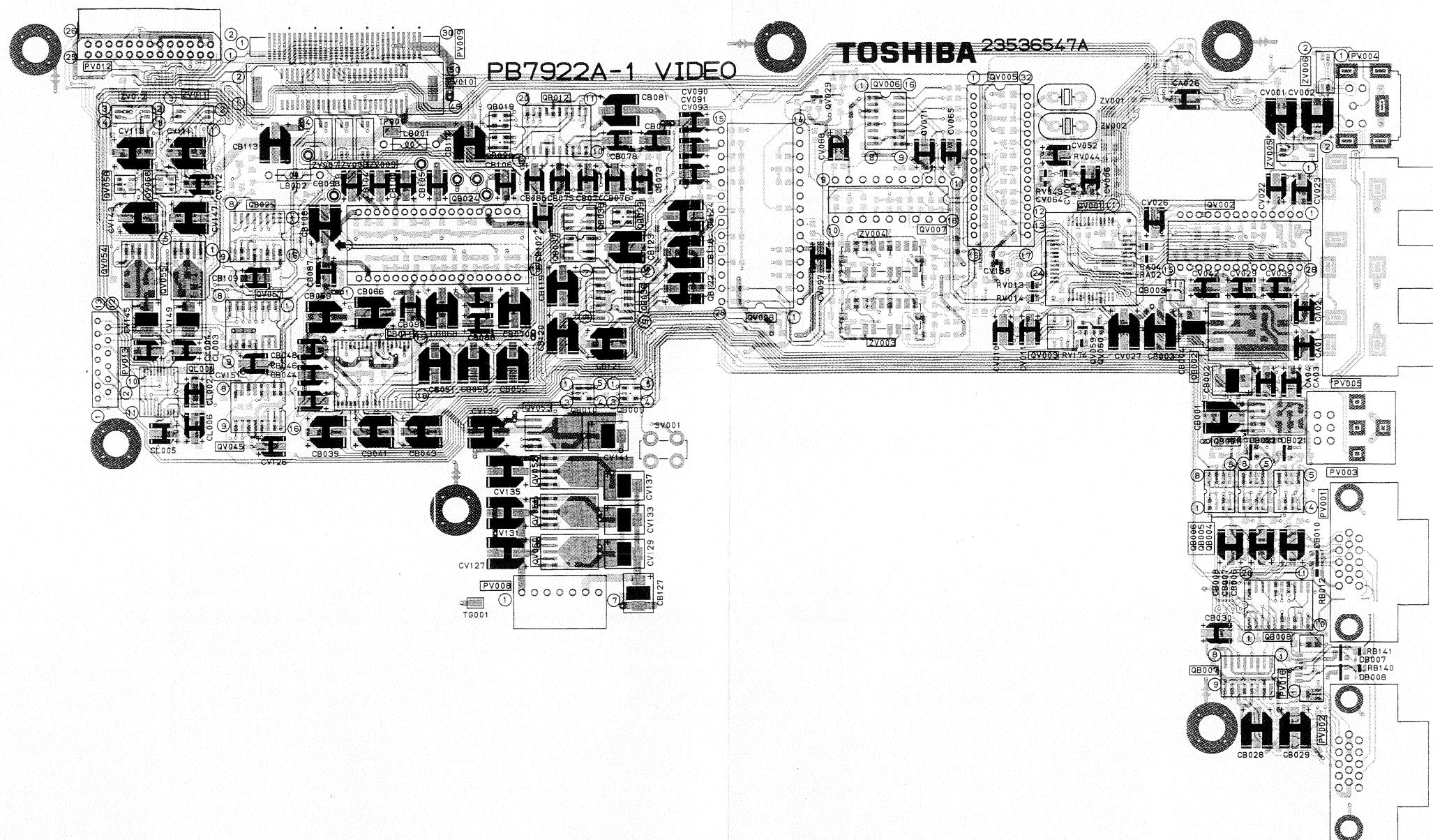


Fig. 2-5-5 U0031 Video PC Board (Top Side)

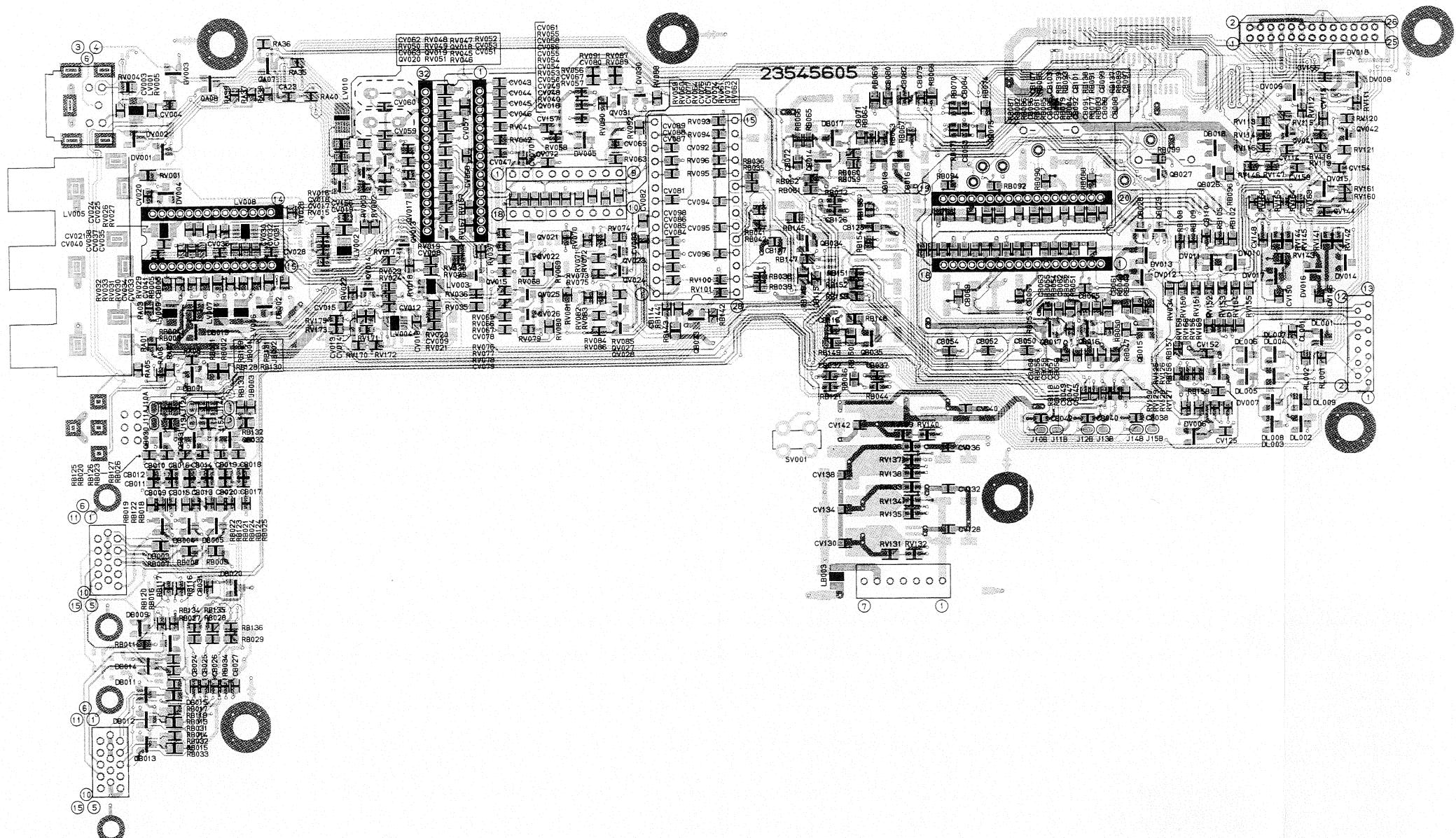


Fig. 2-5-6 U0031 Video PC Board (Bottom Side)

5-4. Audio PC Board

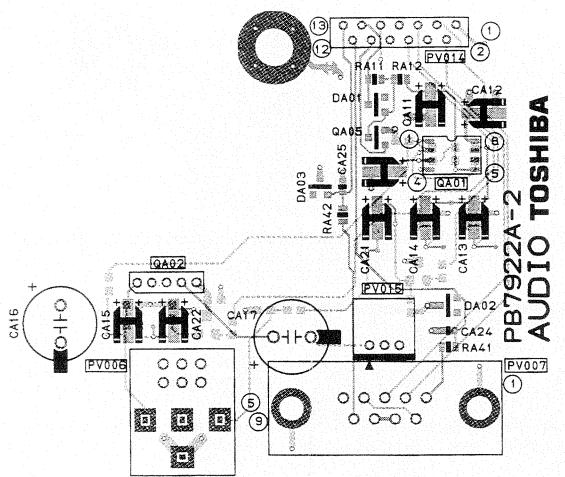


Fig. 2-5-7 U0032 Audio PC Board (Top Side)

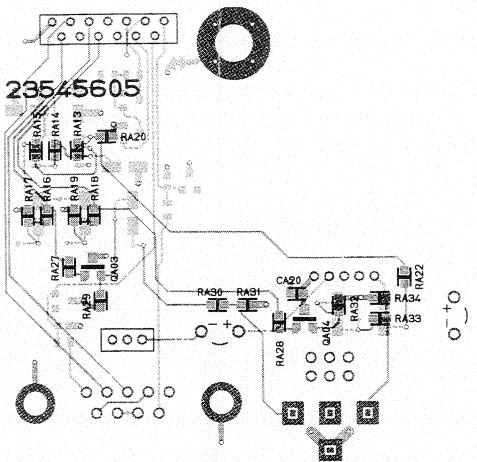


Fig. 2-5-8 U0032 Audio PC Board (Bottom Side)

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SECTION 3

PARTS LIST

SAFETY PRECAUTION

The parts identified by Δ mark are critical for safety. Replace only with part number specified.

The mounting position of replacement is to be identical with originals.

The substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

NOTICE

The part number must be used when ordering parts in order to assist in processing, be sure to include the model number and description.

Parts marked # are of chip type and mounted on original PC boards.

However, when they are placed for servicing works, use discrete parts listed on the parts list.

ABBREVIATIONS

1. Integrated circuit (IC)

2. Capacitor (Cap)

- Capacitance Tolerance (for Nominal Capacitance more than 10pF)

Table 3-2-1

Symbol	B	C	D	F	G	J	K	M	N
Tolerance %	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10	± 20	± 30

Symbol	P	Q	T	U	V	W	X	Y	Z
Tolerance %	+ 100 0	+ 30 - 10	+ 50 - 10	+ 75 - 10	+ 20 - 10	+ 100 - 10	+ 40 - 20	+ 150 - 10	+ 80 - 20

Ex. $10\mu\text{F}$ J = $10\mu\text{F} \pm 5\%$

- Capacitance Tolerance (for Nominal Capacitance 10pF or less)

Table 3-2-2

Symbol	B	C	D	F	G
Tolerance pF	± 0.1	± 0.25	± 0.5	± 1	± 2

Ex. 10pF G = $10\text{pF} \pm 2\text{pF}$

3. Resistor (Res)

- Resistance tolerance

Table 3-3-1

Symbol	B	C	D	F	G	J	K	M
Tolerance %	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10	± 20

Ex. 470Ω J = $470\Omega \pm 5\%$

4. EXPLODED VIEWS

4-1. Packing Assembly

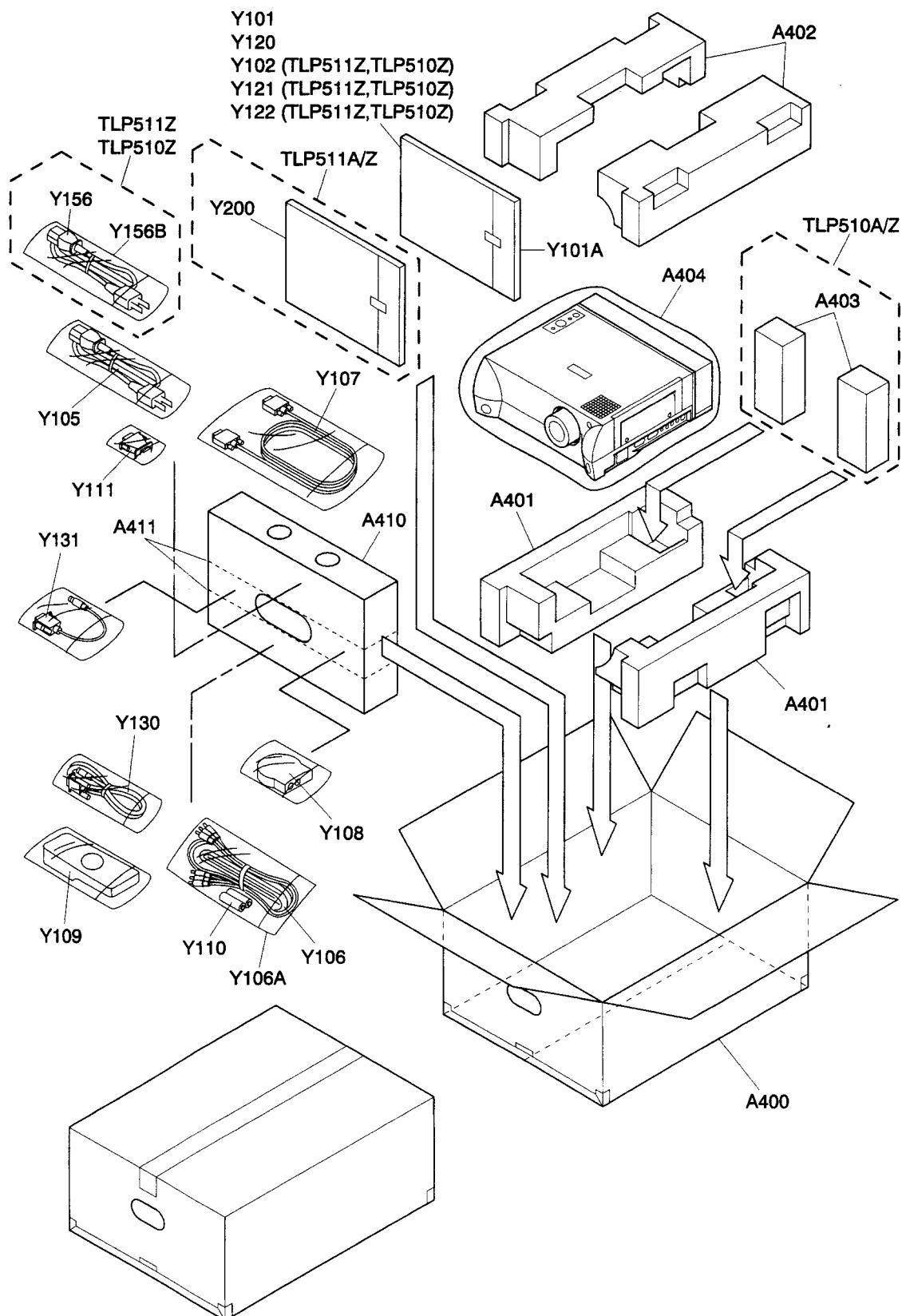


Fig. 3-4-1

4-2. Remote Control Unit

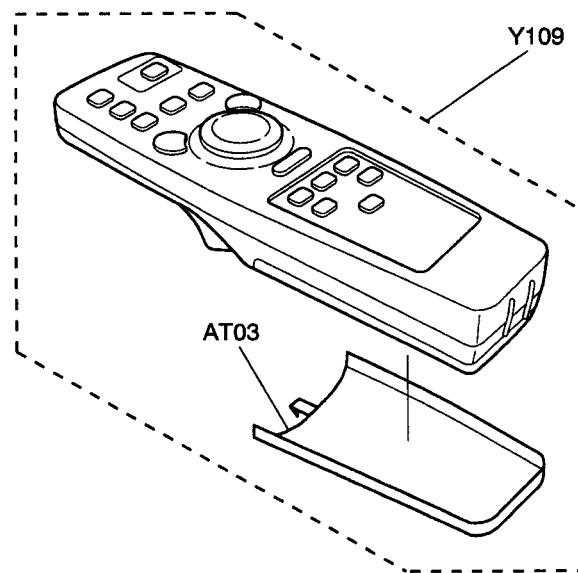


Fig. 3-4-2

4-3. Label Position

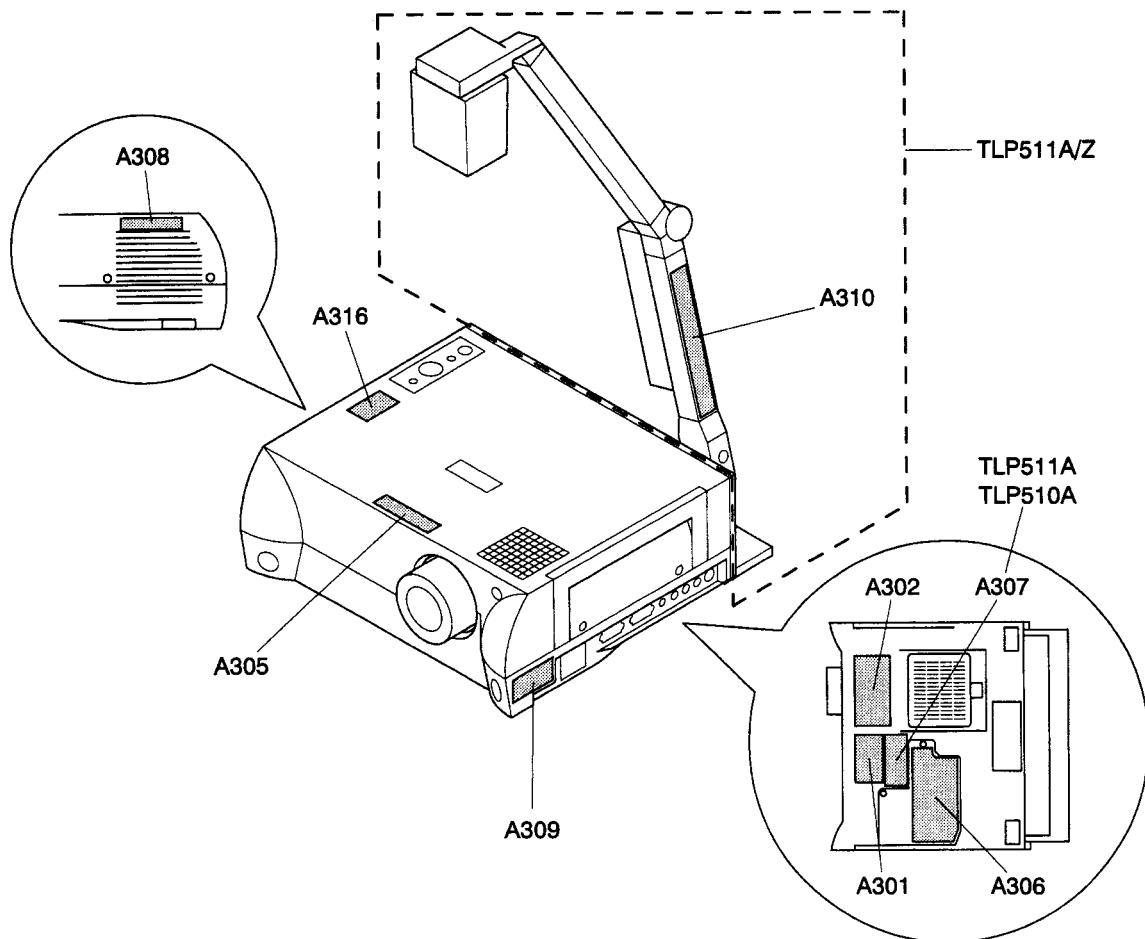


Fig. 3-4-3

4-4. Chassis Assembly

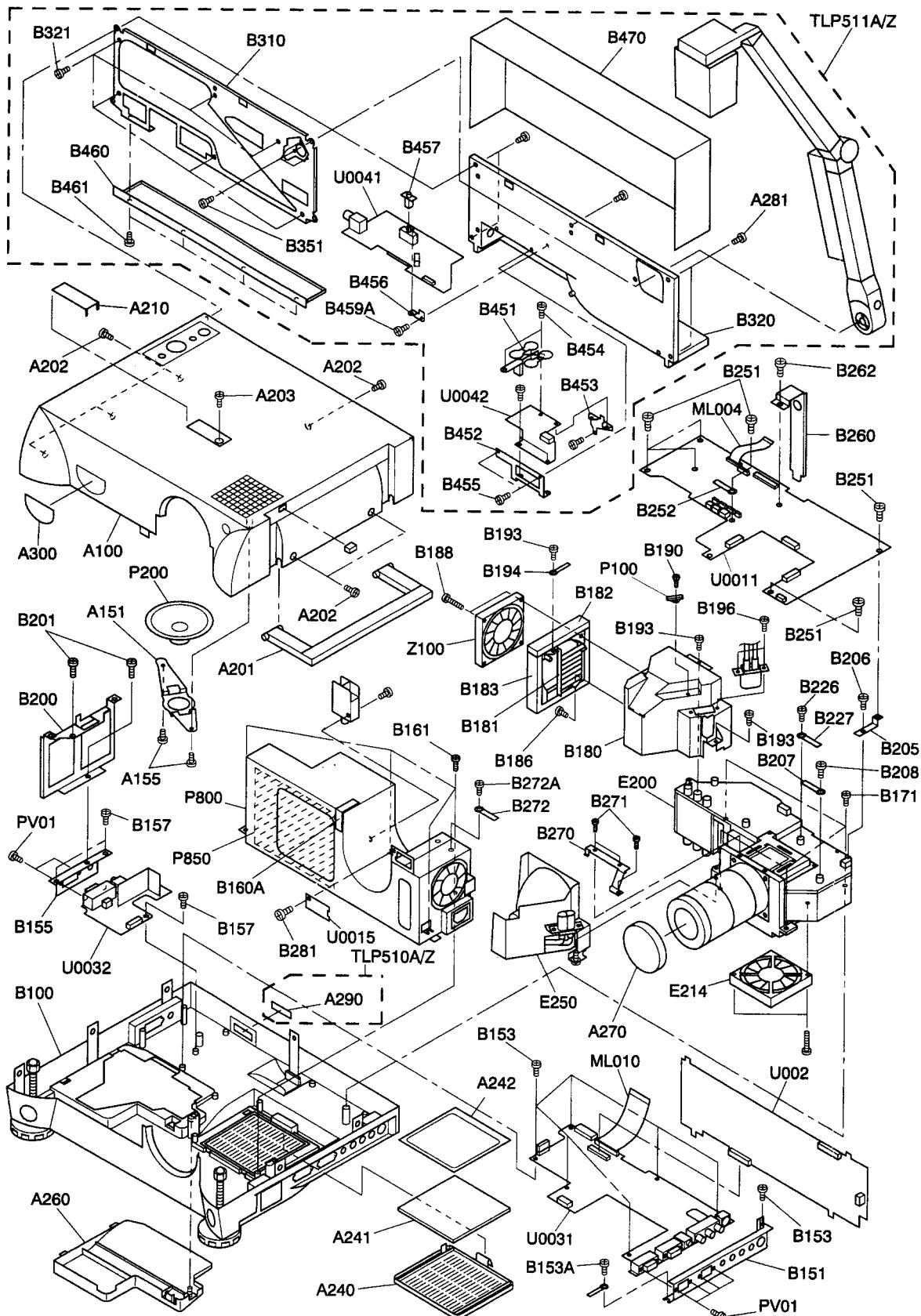


Fig. 3-4-4

4-5. Optical Box Assembly

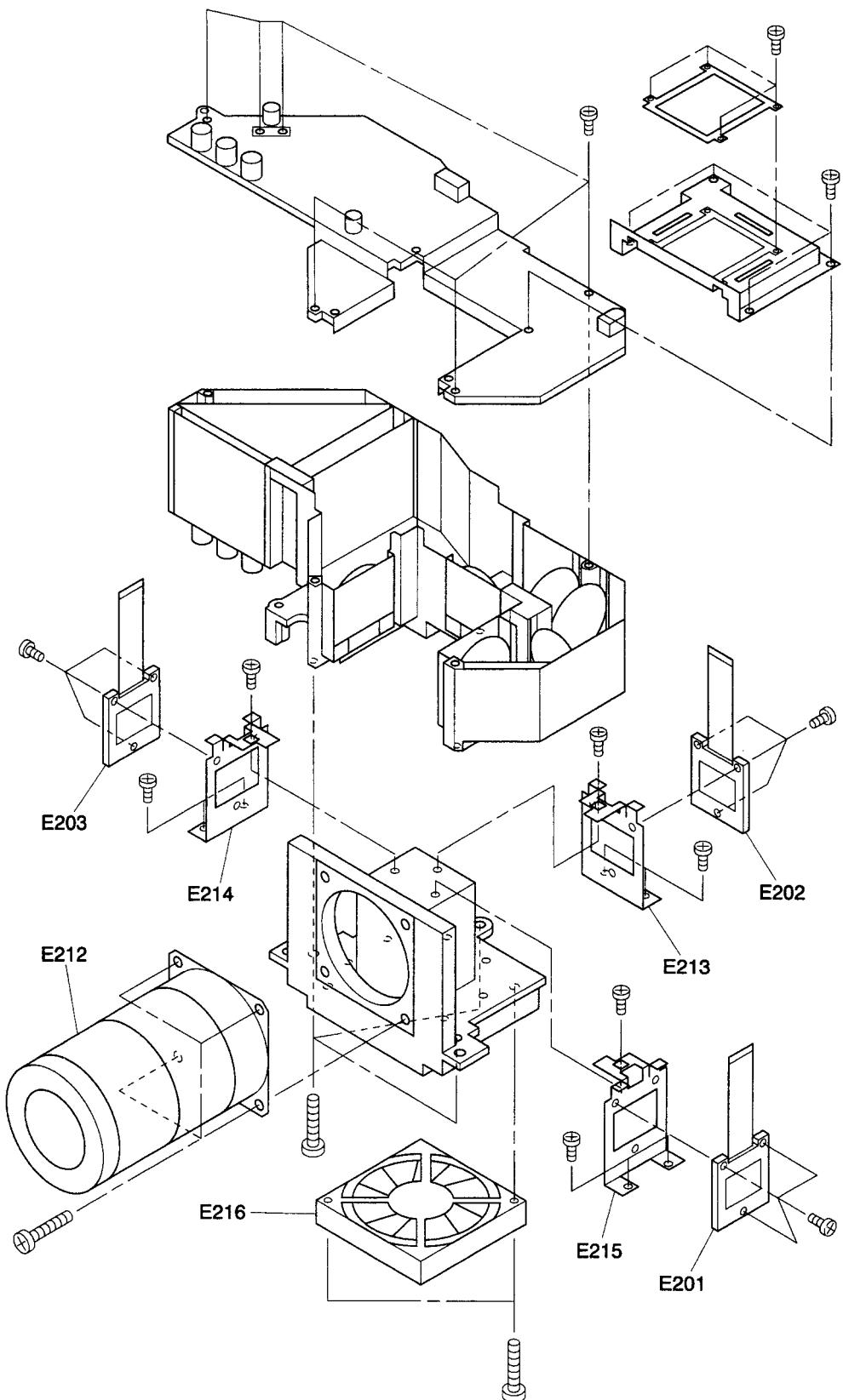


Fig. 3-4-5

4-6. Arm Assembly (TLP511A/Z)

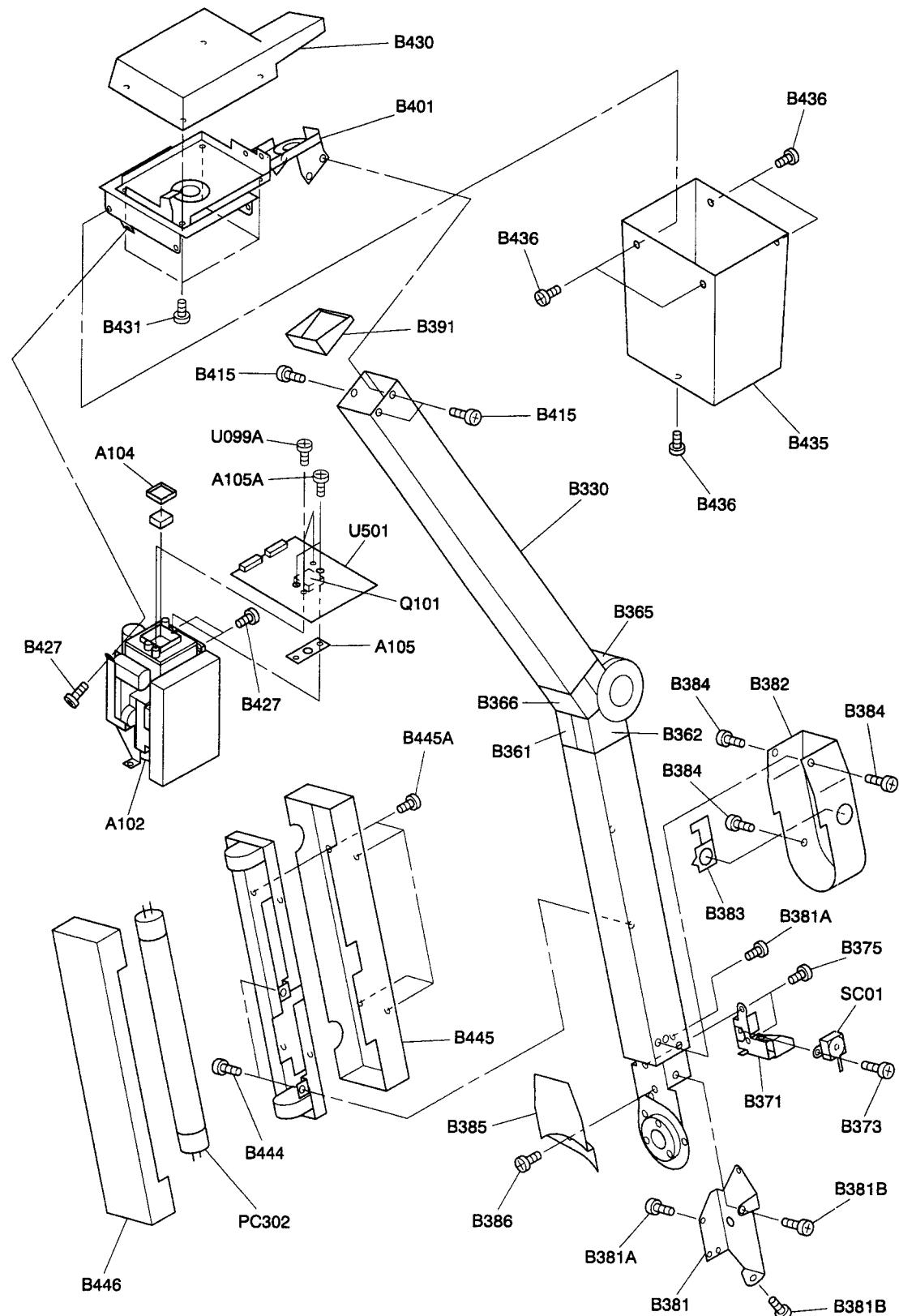


Fig. 3-4-6

5. PARTS LIST

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION			
- MECHANICAL PARTS (TLP511A/Z) -								
△A100	23510269	Top Cover Assy	B436	70391378	Screw			
A102	70962322	Lens	B444	23723264	Screw			
A104	70860308	Packing	△B445	23464597	Cover			
A105A	70391878	Screw	B445A	70391378	Screw			
A155	23721016	Screw	△B446	23464638	Cover			
A201	23975089	Handle Assy	B451	23445112	Button			
A202	23723317	Screw	B454	23723265	Screw			
A203	23721308	Screw	B455	23710152	Screw			
A210	23975086	Top Tag Cover	B457	23445115	Cover			
△A240	23975085	Filter Cover	B459A	23710152	Screw			
△A241	23460902	Air Filter	B460	23448475	Bottom Cover			
A242	23460903	Air Filter, Mesh	B461	23710156	Screw			
△A260	23975090	Lamp Cover Assy	B470	23448473	Back Cover			
A270	23975087	Lens Cap	△E200	23796138	Optical Engine			
A281	23723317	Screw	E201	23301299	LCD Panel			
A300	23560646	Sheet, Front, Tag	E202	23301300	LCD Panel			
△A301	23560900	Label	E203	23301301	LCD Panel			
△A302	23560368	Label	Q101	70200608	IC			
△A305	23560649	Label	△ML004	23504883	Wire			
△A306	23560650	Label	△ML010	23504884	Wire			
△A307	23560651	Label	△P100	23144598	Thermal Lead SW			
△A308	23560382	Label	P200	23351111	Speaker			
△A309	23560652	Label	△P800	23796034	Main Power Assy			
△A310	23560653	Label	△P850	23795579	Lamp Driver			
△A316	23550025	Label	PC302	23905651	Fluorescence Light FL4N			
A400	23525524	Case	SC01	23344401	Switch, Detect			
A401	23935674	Packing	Y099A	70391261	Screw			
A402	23935675	Packing	△Y101	23552694	Owners Manual			
A404	23943034	Bag	Y101A	23943846	Cover			
A410	23525359	Accssory Box	△Y105	23176937	Power Cord			
A411	23525360	Partition Board	Y106	23368618	Pin Cable			
AT03	23588228	Case (Battery)	Y106A	23943855	Cover			
△B100	23510263	Chassis Bottom Assy	Y108	23306241	Remote Sensor Unit			
B153	23721016	Screw	Y109	23306240	Remote Control Unit			
B153A	70391440	Screw	Y111	23368679	MAC Adaptor			
B157	23721016	Screw	Y120	23552702	Quick Card			
B160A	23460943	Screw	Y130	23368676	Cable			
B161	23721016	Screw	Y131	23368677	Cable			
B171	23721014	Screw	Y200	23460918	Document Sheet			
B188	23721018	Screw	△Z100	23125481	Fan			
B190	70391440	Screw	- DIFFERENCE LIST (TLP511Z) -					
B193	23721308	Screw	△A260	23975092	Lamp Cover Assy			
B196	70391440	Screw	△A301	23560902	Label			
B201	23721308	Screw	△A307	-----	Raiting			
B206	23721308	Screw	A400	23525526	Case			
B208	23721016	Screw	B430	23448488	Cover			
B226	23721016	Screw	B435	23448489	Cover			
B251	23721308	Screw	△Y101	23552696	Owners Manual			
B262	23721308	Screw	△Y102	23552697	Owners Manual			
B271	23721306	Screw	△Y105	23176002	Power Cord			
B272A	23721306	Screw	Y121	23552704	Quick Card			
B281	23721306	Screw	Y122	23552705	Quick Card			
B320	23448477	Cover Assy	Y156	23372019	Power Cord			
B321	23710179	Screw	Y156B	23943846	Cover			
B330	23470480	Arm Assy						
B361	23464589	Cover						
B362	23464590	Cover						
B365	23464591	Cover						
B366	23464592	Cover						
B373	23723265	Screw						
B375	23723264	Screw						
B381A	23710176	Screw						
B382	23464602	Cover						
B383	23445113	Button						
B384	70391378	Screw						
B385	23464603	Cover						
B386	70391378	Screw						
B391	23464604	Cover						
B415	23710176	Screw						
B427	70391378	Screw						
B430	23448474	Cover						
B435	23448469	Cover						

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION
- MECHANICAL PARTS (TLP510A/Z) -					
△A100	23510269	Top Cover Assy	△A260	23975092	Lamp Cover Assy
A104	70860308	Packing	△A301	23560905	Label
A155	23721016	Screw	△A307	-----	Raiting
△A201	23975089	Handle Assy	A400	23525529	Case
A202	23723317	Screw	△Y101	23552669	Owners Manual
A203	23721308	Screw	△Y102	23552697	Owners Manual
A210	23975086	Top Tag Cover	△Y105	23176002	Power Cord
△A240	23975085	Filter Cover	Y121	23552704	Quick Card
△A241	23460902	Air Filter	Y122	23552705	Quick Card
A242	23460903	Air Filter, Mesh	Y156	23372019	Power Cord
△A260	23975090	Lamp Cover Assy	Y156B	23943846	Cover
A270	23975087	Lens Cap			
A290	23460915	Sheet			
A300	23560690	Sheet, Front, Tag			
△A301	23560903	Label			
		Rating			
△A302	23560368	Label			
		Caution(Rear)			
△A305	23560649	Label			
		Caution(Lens)			
△A306	23560650	Label			
		Caution(Lamp Change)			
△A307	23560651	Label			
		Caution(Interlock)			
△A308	23560382	Label			
		Caution(Hot)			
△A309	23560652	Label			
		Caution(AC Cord)	△C115	23588336	Cap
△A316	23550025	Label	△C104	23588337	Cap
A400	23525527	Case	△C101	23588338	Cap
A401	23935674	Packing	△C106	23588339	Cap
A402	23935675	Packing	△R305	23588340	Res
A403	23935706	Packing, Sub	△R101	23588341	Res
A404	23943038	Bag	△L301	23588342	Coil, Choke
A410	23525359	Accesssory Box	△LF101	23588343	Line Filter
A411	23525360	Partition Board	△T301	23588344	Drive Trasformer
AT03	23588228	Case(Battery)	△T101	23588345	Converter Transformer
△B100	23510263	Chassis Bottom Assy	△LF102	23588346	Line Filter
B153	23721016	Screw	△I101	23588347	AC Inlet
		2W3x6mm	△F101	23588348	Fuse
B153A	70391440	Screw	△FAN	23588349	Fan
		3x10mm	△S101	23588350	Switch
B157	23721016	Screw	△VDR101	23588351	Varister
B160A	23460943	Screw	△D301	23588352	Diode
		10x80x0.1	△D306	23588353	Triac
B161	23721016	Screw	△D302	23588354	Diode
B171	23721014	Screw	△Q102	23588355	Transistor, FET
B188	23721018	Screw	△Q301	23588356	Transistor, FET
B190	70391440	Screw	△PH301	23588357	Photo Coupler
		3x10mm	△IC302	23588358	IC
B193	23721308	Screw	△IC301	23588359	IC
B196	70391440	Screw	△IC303	23588360	IC
B201	23721308	Screw	△IC402	23588361	IC
B206	23721308	Screw	△	23588362	Wire
B208	23721016	Screw			
B226	23721016	Screw			
B251	23721308	Screw			
B262	23721308	Screw			
B271	23721306	Screw			
B272A	23721306	Screw			
B281	23721306	Screw			
△E200	23796138	Optical Engine			
E201	23301299	LCD Panel			
E202	23301300	LCD Panel			
E203	23301301	LCD Panel			
△ML004	23504883	Wire			
△ML010	23504884	Wire			
P100	23144598	Thermal Lead SW			
P200	23351111	Speaker			
△P800	23796034	Main Power Assy			
△P850	23795579	Lamp Driver			
△Y101	23552694	Owners Manual			
Y101A	23943846	Cover			
△Y105	23176937	Power Cord			
Y106	23368618	Pin Cable			
Y106A	23943855	Cover			
Y108	23306241	Remote Sensor Unit			
△Y109	23306251	Remote Control Unit			
Y111	23368679	MAC Adaptor			
Y120	23552702	Quick Card			
Y130	23368676	Cable			
Y131	23368677	Cable			
△Z100	23125481	Fan			
- DIFFERENCE LIST (TLP510Z) -					
MAIN POWER(P800) INTERNAL PARTS (TLP510, TLP511A/Z)					

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION
- ELECTRICAL PARTS -					
■U011	23781603	PC Board Assy Drive	DL041	23118313	Diode, Chip RD6. 2M
		- INTEGRATED CIRCUITS -	DL042	23118313	Diode, Chip RD6. 2M
Q401	23906360	IC CXA2112R	DL043	23118313	Diode, Chip RD6. 2M
Q402	23906360	IC CXA2112R			- COILS -
Q501	23906360	IC CXA2112R	L401	23245847	Coil, Chip TRF4330CC
Q502	23906360	IC CXA2112R	L402	23245847	Coil, Chip TRF4330CC
Q601	23906360	IC CXA2112R	L403	23245847	Coil, Chip TRF4330CC
Q602	23906360	IC CXA2112R	L404	23245847	Coil, Chip TRF4330CC
Q701	23906361	IC CXA2111R	L405	23245847	Coil, Chip TRF4330CC
Q900	23906224	IC M62399FP	L406	23245847	Coil, Chip TRF4330CC
Q901	B0489227	IC TC74ACT244F	L501	23245847	Coil, Chip TRF4330CC
Q902	B0489227	IC TC74ACT244F	L502	23245847	Coil, Chip TRF4330CC
Q950	70129738	IC PQ20VZ1U	L503	23245847	Coil, Chip TRF4330CC
Q951	70129738	IC PQ20VZ1U	L504	23245847	Coil, Chip TRF4330CC
Q952	70129738	IC PQ20VZ1U	L505	23245847	Coil, Chip TRF4330CC
QF006	23319214	IC MC33078M	L506	23245847	Coil, Chip TRF4330CC
QL003	70129738	IC PQ20VZ1U	L601	23245847	Coil, Chip TRF4330CC
QL004	70200430	IC RN5VD27A	L602	23245847	Coil, Chip TRF4330CC
QL005	23904881	IC MC74HC14AF	L603	23245847	Coil, Chip TRF4330CC
QL006	23906209	IC CAT24C16J	L604	23245847	Coil, Chip TRF4330CC
QL007	70129902	IC MC74HC541FEL	L605	23245847	Coil, Chip TRF4330CC
QL009	B0488392	IC TC74HC125AF	L606	23245847	Coil, Chip TRF4330CC
QL010	70129907	IC MC74HC165F	L701	23245847	Coil, Chip TRF4330CC
QL012	B0488392	IC TC74HC125AF	L901	23245847	Coil, Chip TRF4330CC
		- TRANSISTORS -	L902	23245847	Coil, Chip TRF4330CC
Q403	A6365620	Transistor, Chip 2SC4116-Y	LF001	23103864	Coil, Chip TEM2103T
Q404	A6549570	Transistor, Chip 2SA1586-Y	LF002	23103864	Coil, Chip TEM2103T
Q405	A6358620	Transistor, Chip 2SC3265-Y			- CAPACITORS -
Q406	A6546370	Transistor, Chip 2SA1298-Y	C405	24092538	Cap, Chip 1μF Z 10V
Q503	A6365620	Transistor, Chip 2SC4116-Y	C406	24088085	Cap, Chip 22μF M 10V
Q504	A6549570	Transistor, Chip 2SA1586-Y	C407	24100103	Cap, Chip 0.01μF Z 50V
Q505	A6358620	Transistor, Chip 2SC3265-Y	C408	24092294	Cap, Chip 0.33μF Z 16V
Q506	A6546370	Transistor, Chip 2SA1298-Y	C409	24295106	Cap, Chip 10μF M 25V
Q603	A6365620	Transistor, Chip 2SC4116-Y	C410	24092399	Cap, Chip 0.1μF Z 16V
Q604	A6549570	Transistor, Chip 2SA1586-Y	C411	24092294	Cap, Chip 0.33μF Z 16V
Q605	A6358620	Transistor, Chip 2SC3265-Y	C412	24295106	Cap, Chip 10μF M 25V
Q606	A6546370	Transistor, Chip 2SA1298-Y	C413	24088085	Cap, Chip 22μF M 10V
QF001	A6365620	Transistor, Chip 2SC4116-Y	C414	24092538	Cap, Chip 1μF Z 10V
QF002	A6341974	Transistor, Chip 2SC2873-Y	C415	24092294	Cap, Chip 0.33μF Z 16V
QF003	A6341974	Transistor, Chip 2SC2873-Y	C416	24295106	Cap, Chip 10μF M 25V
QF004	A6365620	Transistor, Chip 2SC4116-Y	C417	24092294	Cap, Chip 0.33μF Z 16V
QF005	A6365620	Transistor, Chip 2SC4116-Y	C418	24295106	Cap, Chip 10μF M 25V
QL008	A6365620	Transistor, Chip 2SC4116-Y	C419	24293226	Cap, Chip 22μF M 16V
QL011	A6365620	Transistor, Chip 2SC4116-Y	C420	24295106	Cap, Chip 10μF M 25V
		- DIODES -	C421	24092294	Cap, Chip 0.33μF Z 16V
DL011	23118313	Diode, Chip RD6. 2M	C423	24295106	Cap, Chip 10μF M 25V
DL012	A7150800	Diode, Chip 1SS187	C424	24092294	Cap, Chip 0.33μF Z 16V
DL013	A7150800	Diode, Chip 1SS187	C425	24092399	Cap, Chip 0.1μF Z 16V
DL014	A7150800	Diode, Chip 1SS187	C426	24092399	Cap, Chip 0.1μF Z 16V
DL015	A7150800	Diode, Chip 1SS187	C427	24092399	Cap, Chip 0.1μF Z 16V
DL016	A7150800	Diode, Chip 1SS187	C428	24092399	Cap, Chip 0.1μF Z 16V
DL017	A7150800	Diode, Chip 1SS187	C429	24092399	Cap, Chip 0.1μF Z 16V
DL018	23118313	Diode, Chip RD6. 2M	C430	24092399	Cap, Chip 0.1μF Z 16V
DL021	23118313	Diode, Chip RD6. 2M	C431	24092399	Cap, Chip 0.1μF Z 16V
DL022	23118313	Diode, Chip RD6. 2M	C432	24092399	Cap, Chip 0.1μF Z 16V
DL023	23118313	Diode, Chip RD6. 2M	C505	24092538	Cap, Chip 1μF Z 10V
DL024	23118313	Diode, Chip RD6. 2M	C506	24088085	Cap, Chip 22μF M 10V
DL025	23118313	Diode, Chip RD6. 2M	C507	24100103	Cap, Chip 0.01μF Z 50V
DL026	23118313	Diode, Chip RD6. 2M	C508	24092294	Cap, Chip 0.33μF Z 16V
DL027	23118313	Diode, Chip RD6. 2M	C509	24295106	Cap, Chip 10μF M 25V
DL028	23118313	Diode, Chip RD6. 2M	C510	24092399	Cap, Chip 0.1μF Z 16V
DL029	23118313	Diode, Chip RD6. 2M	C511	24092294	Cap, Chip 0.33μF Z 16V
DL030	23118313	Diode, Chip RD6. 2M	C512	24295106	Cap, Chip 10μF M 25V
DL031	23118313	Diode, Chip RD6. 2M	C513	24088085	Cap, Chip 22μF M 10V
DL032	23118313	Diode, Chip RD6. 2M	C514	24092538	Cap, Chip 1μF Z 10V
DL033	23118313	Diode, Chip RD6. 2M	C515	24092294	Cap, Chip 0.33μF Z 16V
DL034	23118313	Diode, Chip RD6. 2M	C516	24295106	Cap, Chip 10μF M 25V
DL037	23358535	Diode, LED SPR325MVWMNP	C517	24092294	Cap, Chip 0.33μF Z 16V
DL038	23358535	Diode, LED SPR325MVWMNP	C518	24295106	Cap, Chip 10μF M 25V
DL039	23358535	Diode, LED SPR325MVWMNP	C519	24293226	Cap, Chip 22μF M 16V
DL040	A7150800	Diode, Chip 1SS187	C520	24295106	Cap, Chip 10μF M 25V
			C521	24092294	Cap, Chip 0.33μF Z 16V
			C523	24295106	Cap, Chip 10μF M 25V
			C524	24092294	Cap, Chip 0.33μF Z 16V
			C525	24092399	Cap, Chip 0.1μF Z 16V

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
C526	24092399	Cap, Chip	0.1 μ F
C527	24092399	Cap, Chip	0.1 μ F
C528	24092399	Cap, Chip	0.1 μ F
C529	24092399	Cap, Chip	0.1 μ F
C530	24092399	Cap, Chip	0.1 μ F
C531	24092399	Cap, Chip	0.1 μ F
C532	24092399	Cap, Chip	0.1 μ F
C605	24092538	Cap, Chip	1 μ F
C606	24088085	Cap, Chip	22 μ F
C607	24100103	Cap, Chip	0.01 μ F
C608	24092294	Cap, Chip	0.33 μ F
C609	24295106	Cap, Chip	10 μ F
C610	24092399	Cap, Chip	0.1 μ F
C611	24092294	Cap, Chip	0.33 μ F
C612	24295106	Cap, Chip	10 μ F
C613	24088085	Cap, Chip	22 μ F
C614	24092538	Cap, Chip	1 μ F
C615	24092294	Cap, Chip	0.33 μ F
C616	24295106	Cap, Chip	10 μ F
C617	24092294	Cap, Chip	0.33 μ F
C618	24295106	Cap, Chip	10 μ F
C619	2493226	Cap, Chip	22 μ F
C620	24295106	Cap, Chip	10 μ F
C621	24092294	Cap, Chip	0.33 μ F
C623	24295106	Cap, Chip	10 μ F
C624	24092294	Cap, Chip	0.33 μ F
C625	24092399	Cap, Chip	0.1 μ F
C626	24092399	Cap, Chip	0.1 μ F
C627	24092399	Cap, Chip	0.1 μ F
C628	24092399	Cap, Chip	0.1 μ F
C629	24092399	Cap, Chip	0.1 μ F
C630	24092399	Cap, Chip	0.1 μ F
C631	24092399	Cap, Chip	0.1 μ F
C632	24092399	Cap, Chip	0.1 μ F
C701	24092441	Cap, Chip	1 μ F
C702	24092441	Cap, Chip	1 μ F
C703	24092441	Cap, Chip	1 μ F
C704	24092538	Cap, Chip	1 μ F
C705	24088080	Cap, Chip	33 μ F
C706	24092538	Cap, Chip	1 μ F
C707	24088080	Cap, Chip	33 μ F
C709	24092399	Cap, Chip	0.1 μ F
C710	24092399	Cap, Chip	0.1 μ F
C711	24092399	Cap, Chip	0.1 μ F
C712	24092399	Cap, Chip	0.1 μ F
C713	24092399	Cap, Chip	0.1 μ F
C714	24092399	Cap, Chip	0.1 μ F
C715	24092399	Cap, Chip	0.1 μ F
C900	24092399	Cap, Chip	0.1 μ F
C901	24092399	Cap, Chip	0.1 μ F
C902	24092399	Cap, Chip	0.1 μ F
C903	24092399	Cap, Chip	0.1 μ F
C904	24092399	Cap, Chip	0.1 μ F
C905	24092399	Cap, Chip	0.1 μ F
C906	24092399	Cap, Chip	0.1 μ F
C907	24092399	Cap, Chip	0.1 μ F
C908	24092538	Cap, Chip	1 μ F
C909	24619096	Cap, Chip	22 μ F
C910	24619096	Cap, Chip	22 μ F
C911	24092538	Cap, Chip	1 μ F
C912	24092538	Cap, Chip	1 μ F
C913	24092538	Cap, Chip	1 μ F
C950	24619099	Cap, Chip	33 μ F
C951	24092538	Cap, Chip	1 μ F
C952	24619099	Cap, Chip	33 μ F
C953	24092538	Cap, Chip	1 μ F
C954	24619106	Cap, Chip	33 μ F
C955	24092293	Cap, Chip	0.1 μ F
C956	24619106	Cap, Chip	33 μ F
C957	24092441	Cap, Chip	1 μ F
C958	24619106	Cap, Chip	33 μ F
C959	24092293	Cap, Chip	0.1 μ F
C960	24619106	Cap, Chip	33 μ F
C961	24092441	Cap, Chip	1 μ F
CF005	24619102	Cap, Chip	47 μ F

LOCATION NUMBER	PART NUMBER	DESCRIPTION
CF006	24619102	Cap, Chip
CF009	24619102	Cap, Chip
CF010	24619102	Cap, Chip
CF013	24105101	Cap, Chip
CF014	24105101	Cap, Chip
CF015	24092441	Cap, Chip
CF016	24092441	Cap, Chip
CF017	24619102	Cap, Chip
CF018	24619102	Cap, Chip
CL011	24105101	Cap, Chip
CL012	24105101	Cap, Chip
CL013	24105101	Cap, Chip
CL014	24105101	Cap, Chip
CL015	24105101	Cap, Chip
CL016	24105101	Cap, Chip
CL017	24105101	Cap, Chip
CL018	24105101	Cap, Chip
CL019	24105101	Cap, Chip
CL020	24105101	Cap, Chip
CL021	24105101	Cap, Chip
CL022	24105101	Cap, Chip
CL023	24105101	Cap, Chip
CL024	24105101	Cap, Chip
CL025	24105101	Cap, Chip
CL026	24105101	Cap, Chip
CL027	24105101	Cap, Chip
CL028	24105101	Cap, Chip
CL029	24105101	Cap, Chip
CL030	24105101	Cap, Chip
CL031	24105101	Cap, Chip
CL032	24105101	Cap, Chip
CL033	24105101	Cap, Chip
CL034	24105101	Cap, Chip
CL035	24105101	Cap, Chip
CL036	24105101	Cap, Chip
CL037	24105101	Cap, Chip
CL038	24105101	Cap, Chip
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CL040	24105101	Cap, Chip
CL041	24105101	Cap, Chip
CL042	24105101	Cap, Chip
CL043	24105101	Cap, Chip
CL044	24105101	Cap, Chip
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CL046	24105101	Cap, Chip
CL047	24105101	Cap, Chip
CL048	24105101	Cap, Chip
CL049	24105101	Cap, Chip
CL050	24105101	Cap, Chip
CL051	24105101	Cap, Chip
CL052	24105101	Cap, Chip
CL053	24105101	Cap, Chip
CL054	24105101	Cap, Chip
CL055	24105101	Cap, Chip
CL056	24105101	Cap, Chip
CL057	24105101	Cap, Chip
CL058	24105101	Cap, Chip
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CL061	24105101	Cap, Chip
CL062	24105101	Cap, Chip
CL063	24105101	Cap, Chip
CL064	24105101	Cap, Chip
CL065	24105101	Cap, Chip
CL066	24105101	Cap, Chip
CL067	24105101	Cap, Chip
CL068	24105101	Cap, Chip
CL069	24105101	Cap, Chip
CL070	24105101	Cap, Chip
CL071	24105101	Cap, Chip
CL072	24105101	Cap, Chip
CL073	24105101	Cap, Chip
CL074	24105101	Cap, Chip
CL075	24105101	Cap, Chip
CL076	24100104	Cap, Chip

LOCATION	PART NUMBER	DESCRIPTION	LOCATION	PART NUMBER	DESCRIPTION				
CL077	24619102	Cap, Chip	47 μ F	M 16V	R917	24011330	Res, Chip	33 Ω	J 1/20W
CL078	24100104	Cap, Chip	0.1 μ F	Z 25V	R918	24011330	Res, Chip	33 Ω	J 1/20W
CL079	24619102	Cap, Chip	47 μ F	M 16V	R919	24011330	Res, Chip	33 Ω	J 1/20W
CL080	24100104	Cap, Chip	0.1 μ F	Z 25V	R920	24011330	Res, Chip	33 Ω	J 1/20W
CL081	24100104	Cap, Chip	0.1 μ F	Z 25V	R921	24011330	Res, Chip	33 Ω	J 1/20W
CL082	24619102	Cap, Chip	47 μ F	M 16V	R922	24011330	Res, Chip	33 Ω	J 1/20W
CL084	24100104	Cap, Chip	0.1 μ F	Z 25V	R950	24011302	Res, Chip	3k Ω	J 1/20W
CL085	24100104	Cap, Chip	0.1 μ F	Z 25V	R951	24011102	Res, Chip	1k Ω	J 1/20W
CL086	24619103	Cap, Chip	4.7 μ F	M 25V	R952	24011113	Res, Chip	11k Ω	J 1/20W
CL087	24619103	Cap, Chip	4.7 μ F	M 25V	R953	24011391	Res, Chip	390 Ω	J 1/20W
CL088	24100104	Cap, Chip	0.1 μ F	Z 25V	R954	24011102	Res, Chip	1k Ω	J 1/20W
CL089	24100104	Cap, Chip	0.1 μ F	Z 25V	R955	24011912	Res, Chip	9.1k Ω	J 1/20W
CL090	24100104	Cap, Chip	0.1 μ F	Z 25V	R956	24011681	Res, Chip	680 Ω	J 1/20W
CL091	24100104	Cap, Chip	0.1 μ F	Z 25V	R957	24011102	Res, Chip	1k Ω	J 1/20W
CL092	24100104	Cap, Chip	0.1 μ F	Z 25V	RF004	24011473	Res, Chip	47k Ω	J 1/20W
CL093	24619102	Cap, Chip	47 μ F	M 16V	RF005	24011102	Res, Chip	1k Ω	J 1/20W
CL095	24109152	Cap, Chip	1500pF	K 50V	RF006	24011102	Res, Chip	1k Ω	J 1/20W
CL096	24109152	Cap, Chip	1500pF	K 50V	RF007	24019112	Res, Chip	1 Ω	F 1/8W
CL100	24109152	Cap, Chip	1500pF	K 50V	RF008	24019112	Res, Chip	1 Ω	F 1/8W
CL101	24105101	Cap, Chip	100pF	J 50V	RF009	24019012	Res, Chip	51 Ω	J 1W
CL102	24105101	Cap, Chip	100pF	J 50V	RF010	24019012	Res, Chip	51 Ω	J 1W
CL103	24105101	Cap, Chip	100pF	J 50V	RF011	24019011	Res, Chip	39 Ω	J 1W
CL104	24105101	Cap, Chip	100pF	J 50V	RF012	24019011	Res, Chip	39 Ω	J 1W
CL105	24105101	Cap, Chip	100pF	J 50V	RF013	24011472	Res, Chip	4.7k Ω	J 1/20W
CL107	24105101	Cap, Chip	100pF	J 50V	RF014	24011472	Res, Chip	4.7k Ω	J 1/20W
CL110	24100104	Cap, Chip	0.1 μ F	Z 25V	RF015	24011221	Res, Chip	220 Ω	J 1/20W
CL111	24619103	Cap, Chip	4.7 μ F	M 25V	RF016	24011221	Res, Chip	220 Ω	J 1/20W
CL112	24100104	Cap, Chip	0.1 μ F	Z 25V	RF017	24011101	Res, Chip	100 Ω	J 1/20W
- RESISTORS -									
R407	24000609	Res, Chip	27k Ω	F 1/16W	RF018	24011101	Res, Chip	100 Ω	J 1/20W
R408	24000609	Res, Chip	27k Ω	F 1/16W	RF019	24011103	Res, Chip	10k Ω	J 1/20W
R409	24011101	Res, Chip	100 Ω	J 1/20W	RF020	24011103	Res, Chip	10k Ω	J 1/20W
R410	24011332	Res, Chip	3.3k Ω	J 1/20W	RF021	24011102	Res, Chip	1k Ω	J 1/20W
R411	24011332	Res, Chip	3.3k Ω	J 1/20W	RF022	24011102	Res, Chip	1k Ω	J 1/20W
R412	24011339	Res, Chip	3.3 Ω	J 1/20W	RF024	24011243	Res, Chip	24k Ω	J 1/20W
R413	24011339	Res, Chip	3.3 Ω	J 1/20W	RF025	24011103	Res, Chip	10k Ω	J 1/20W
R507	24000609	Res, Chip	27k Ω	F 1/16W	RF026	24000607	Res, Chip	22k Ω	F 1/16W
R508	24000609	Res, Chip	27k Ω	F 1/16W	RF027	24011104	Res, Chip	100k Ω	J 1/20W
R509	24011101	Res, Chip	100 Ω	J 1/20W	RF028	24011102	Res, Chip	1k Ω	J 1/20W
R510	24011332	Res, Chip	3.3k Ω	J 1/20W	RF029	24000607	Res, Chip	22k Ω	F 1/16W
R511	24011332	Res, Chip	3.3k Ω	J 1/20W	RL011	24011102	Res, Chip	1k Ω	J 1/20W
R512	24011339	Res, Chip	3.3 Ω	J 1/20W	RL012	24011123	Res, Chip	12k Ω	J 1/20W
R513	24011339	Res, Chip	3.3 Ω	J 1/20W	RL013	24011123	Res, Chip	12k Ω	J 1/20W
R607	24000609	Res, Chip	27k Ω	F 1/16W	RL014	24011123	Res, Chip	12k Ω	J 1/20W
R608	24000609	Res, Chip	27k Ω	F 1/16W	RL015	24011101	Res, Chip	100 Ω	J 1/20W
R609	24011101	Res, Chip	100 Ω	J 1/20W	RL016	24011102	Res, Chip	1k Ω	J 1/20W
R610	24011332	Res, Chip	3.3k Ω	J 1/20W	RL017	24011102	Res, Chip	1k Ω	J 1/20W
R611	24011332	Res, Chip	3.3k Ω	J 1/20W	RL018	24011102	Res, Chip	1k Ω	J 1/20W
R612	24011339	Res, Chip	3.3 Ω	J 1/20W	RL019	24011102	Res, Chip	1k Ω	J 1/20W
R613	24011339	Res, Chip	3.3 Ω	J 1/20W	RL020	24011102	Res, Chip	1k Ω	J 1/20W
R615	24011510	Res, Chip	51 Ω	J 1/20W	RL021	24011102	Res, Chip	1k Ω	J 1/20W
R705	24011103	Res, Chip	10k Ω	J 1/20W	RL022	24011102	Res, Chip	1k Ω	J 1/20W
R706	24011103	Res, Chip	10k Ω	J 1/20W	RL023	24011102	Res, Chip	1k Ω	J 1/20W
R708	24000445	Res, Chip Jumper	0 Ω		RL024	24011102	Res, Chip	1k Ω	J 1/20W
R709	24011302	Res, Chip	3k Ω	J 1/20W	RL025	24011102	Res, Chip	1k Ω	J 1/20W
R710	24011132	Res, Chip	1.3k Ω	J 1/20W	RL026	24011102	Res, Chip	1k Ω	J 1/20W
R711	24011132	Res, Chip	1.3k Ω	J 1/20W	RL027	24011102	Res, Chip	1k Ω	J 1/20W
R712	24011392	Res, Chip	3.9k Ω	J 1/20W	RL028	24011102	Res, Chip	1k Ω	J 1/20W
R900	24011101	Res, Chip	100 Ω	J 1/20W	RL029	24011102	Res, Chip	1k Ω	J 1/20W
R901	24011101	Res, Chip	100 Ω	J 1/20W	RL030	24011102	Res, Chip	1k Ω	J 1/20W
R902	24011101	Res, Chip	100 Ω	J 1/20W	RL031	24011102	Res, Chip	1k Ω	J 1/20W
R903	24011101	Res, Chip	100 Ω	J 1/20W	RL032	24011102	Res, Chip	1k Ω	J 1/20W
R904	24011101	Res, Chip	100 Ω	J 1/20W	RL033	24011102	Res, Chip	1k Ω	J 1/20W
R905	24011101	Res, Chip	100 Ω	J 1/20W	RL034	24011102	Res, Chip	1k Ω	J 1/20W
R906	24011101	Res, Chip	100 Ω	J 1/20W	RL035	24011102	Res, Chip	1k Ω	J 1/20W
R907	24011101	Res, Chip	100 Ω	J 1/20W	RL036	24011102	Res, Chip	1k Ω	J 1/20W
R908	24011752	Res, Chip	7.5k Ω	J 1/20W	RL037	24011102	Res, Chip	1k Ω	J 1/20W
R909	24011562	Res, Chip	5.6k Ω	J 1/20W	RL038	24011102	Res, Chip	1k Ω	J 1/20W
R910	24011330	Res, Chip	33 Ω	J 1/20W	RL039	24011102	Res, Chip	1k Ω	J 1/20W
R911	24011330	Res, Chip	33 Ω	J 1/20W	RL040	24011102	Res, Chip	1k Ω	J 1/20W
R912	24011330	Res, Chip	33 Ω	J 1/20W	RL041	24011102	Res, Chip	1k Ω	J 1/20W
R913	24011330	Res, Chip	33 Ω	J 1/20W	RL042	24011102	Res, Chip	1k Ω	J 1/20W
R914	24011330	Res, Chip	33 Ω	J 1/20W	RL043	24011102	Res, Chip	1k Ω	J 1/20W
R915	24011330	Res, Chip	33 Ω	J 1/20W	RL044	24011101	Res, Chip	100 Ω	J 1/20W
R916	24011330	Res, Chip	33 Ω	J 1/20W	RL045	24011102	Res, Chip	1k Ω	J 1/20W
					RL046	24011102	Res, Chip	1k Ω	J 1/20W

LOCATION	PART		LOCATION	PART					
NUMBER	NUMBER	DESCRIPTION	NUMBER	NUMBER	DESCRIPTION				
RL047	24011102	Res, Chip	1kΩ	J 1/20W	RL128	24011103	Res, Chip	10kΩ	J 1/20W
RL048	24011102	Res, Chip	1kΩ	J 1/20W	RL129	24011103	Res, Chip	10kΩ	J 1/20W
RL049	24011101	Res, Chip	100Ω	J 1/20W	RL131	24011103	Res, Chip	10kΩ	J 1/20W
RL050	24011101	Res, Chip	100Ω	J 1/20W	RL140	24011472	Res, Chip	4.7kΩ	J 1/20W
RL051	24011102	Res, Chip	1kΩ	J 1/20W	RL141	24011104	Res, Chip	100kΩ	J 1/20W
RL052	24011102	Res, Chip	1kΩ	J 1/20W	RL142	24011102	Res, Chip	1kΩ	J 1/20W
RL053	24011101	Res, Chip	100Ω	J 1/20W	RL143	24011202	Res, Chip	2kΩ	J 1/20W
RL054	24011101	Res, Chip	100Ω	J 1/20W	RL144	24011302	Res, Chip	3kΩ	J 1/20W
RL055	24011102	Res, Chip	1kΩ	J 1/20W	RL145	24011474	Res, Chip	470kΩ	J 1/20W
RL056	24011102	Res, Chip	1kΩ	J 1/20W	- MISCELLANEOUS -				
RL057	24011102	Res, Chip	1kΩ	J 1/20W	P401	23903059	Connector	FPC, 32P	
RL058	24011102	Res, Chip	1kΩ	J 1/20W	P501	23903059	Connector	FPC, 32P	
RL059	24011102	Res, Chip	1kΩ	J 1/20W	P601	23903059	Connector	FPC, 32P	
RL060	24011102	Res, Chip	1kΩ	J 1/20W	P701	23903046	Socket	1mm, 50P	
RL061	24011102	Res, Chip	1kΩ	J 1/20W	PL003	70164729	Plug	3P, 1.25mm	
RL062	24011102	Res, Chip	1kΩ	J 1/20W	PL004	23903049	Socket	FPC/FFC	
RL063	24011102	Res, Chip	1kΩ	J 1/20W	PL006	23368674	Plug	2P	
RL064	24011102	Res, Chip	1kΩ	J 1/20W	PL009	23368675	Plug	3P	
RL065	24011102	Res, Chip	1kΩ	J 1/20W	PL010	23903053	Socket	FPC/FFC	
RL066	24011102	Res, Chip	1kΩ	J 1/20W	SL001	23344088	Push Switch		
RL067	24011102	Res, Chip	1kΩ	J 1/20W	SL002	23344088	Push Switch		
RL068	24011102	Res, Chip	1kΩ	J 1/20W	SL003	23344088	Push Switch		
RL069	24011102	Res, Chip	1kΩ	J 1/20W	SL004	23344088	Push Switch		
RL070	24011102	Res, Chip	1kΩ	J 1/20W	SL005	23344088	Push Switch		
RL071	24011102	Res, Chip	1kΩ	J 1/20W	SL006	23344088	Push Switch		
RL072	24011102	Res, Chip	1kΩ	J 1/20W	SL007	23344088	Push Switch		
RL073	24011102	Res, Chip	1kΩ	J 1/20W	SL008	23344088	Push Switch		
RL074	24011472	Res, Chip	4.7kΩ	J 1/20W	XL001	23153752	Crystal		
RL075	24011472	Res, Chip	4.7kΩ	J 1/20W	Z701	23103013	Filter	TEM2020T	
RL076	24011302	Res, Chip	3kΩ	J 1/20W	Z702	23103013	Filter	TEM2020T	
RL077	24011102	Res, Chip	1kΩ	J 1/20W	Z703	23103013	Filter	TEM2020T	
RL078	24011123	Res, Chip	12kΩ	J 1/20W	Z704	23103823	Filter	TEM2027D	
RL079	24011123	Res, Chip	12kΩ	J 1/20W	ZF001	A8662610	Photo Interrupter	TLP121	
RL080	24011123	Res, Chip	12kΩ	J 1/20W	ZF002	A8662610	Photo Interrupter	TLP121	
RL081	24011123	Res, Chip	12kΩ	J 1/20W	ZL005	23144586	Thermal Lead SW	OHD5D-70B	
RL082	24011123	Res, Chip	12kΩ	J 1/20W	■ U0012 23781604 PC Board Assy F-REM				
RL083	24011103	Res, Chip	10kΩ	J 1/20W	- DIODES -				
RL084	24011472	Res, Chip	4.7kΩ	J 1/20W	DL301	23118313	Diode, Chip	RD6. 2M	
RL085	24011103	Res, Chip	10kΩ	J 1/20W	DL302	23118313	Diode, Chip	RD6. 2M	
RL087	24011103	Res, Chip	10kΩ	J 1/20W	- CAPACITORS -				
RL088	24011472	Res, Chip	4.7kΩ	J 1/20W	CL301	24619102	Cap, Chip	47μF M 16V	
RL089	24011472	Res, Chip	4.7kΩ	J 1/20W	- RESISTORS -				
RL090	24011103	Res, Chip	10kΩ	J 1/20W	RF030	24019424	Res	NTH4G41B503E01	
RL092	24011103	Res, Chip	10kΩ	J 1/20W	RL301	24011101	Res, Chip	100Ω J 1/20W	
RL093	24011103	Res, Chip	10kΩ	J 1/20W	- MISCELLANEOUS -				
RL094	24011103	Res, Chip	10kΩ	J 1/20W	ZL301	23906419	Photo Reciever	RPM676CBRS02	
RL095	24011103	Res, Chip	10kΩ	J 1/20W	■ U002 23781605 PC Board Assy Digital				
RL096	24011103	Res, Chip	10kΩ	J 1/20W	- INTEGRATED CIRCUITS -				
RL097	24011102	Res, Chip	1kΩ	J 1/20W	QX001	A6030107	IC	TC7S14F	
RL098	24011472	Res, Chip	4.7kΩ	J 1/20W	QX002	A6030620	IC	TC7S04F	
RL099	24011104	Res, Chip	100kΩ	J 1/20W	QX003	23906210	IC	CD0016AM	
RL100	24011104	Res, Chip	100kΩ	J 1/20W	QX004	B0638318	IC	TC160G54AF-1	
RL101	24011103	Res, Chip	10kΩ	J 1/20W	QX011	23906234	IC	M62320FP	
RL102	24011103	Res, Chip	10kΩ	J 1/20W	QX017	A6030640	IC	TC7S32F	
RL103	24011103	Res, Chip	10kΩ	J 1/20W	QX018	70129738	IC	PQ20VZ1U	
RL104	24011103	Res, Chip	10kΩ	J 1/20W	QX019	70129738	IC	PQ20VZ1U	
RL105	24011103	Res, Chip	10kΩ	J 1/20W	QX020	70129738	IC	PQ20VZ1U	
RL106	24011103	Res, Chip	10kΩ	J 1/20W	QX021	70129738	IC	PQ20VZ1U	
RL107	24011103	Res, Chip	10kΩ	J 1/20W	QX028	23906218	IC	CXA3106Q	
RL108	24011103	Res, Chip	10kΩ	J 1/20W	QX029	23905013	IC	TLC2932	
RL109	24011471	Res, Chip	470Ω	J 1/20W	QX031	A6030107	IC	TC7S14F	
RL110	24011471	Res, Chip	470Ω	J 1/20W	QX032	70129738	IC	PQ20VZ1U	
RL111	24011471	Res, Chip	470Ω	J 1/20W	QX033	70129738	IC	PQ20VZ1U	
RL112	24011471	Res, Chip	470Ω	J 1/20W	QX034	70129738	IC	PQ20VZ1U	
RL113	24011471	Res, Chip	470Ω	J 1/20W	QX035	70200430	IC	RN5VD27A	
RL114	24011471	Res, Chip	470Ω	J 1/20W	QX037	A6030630	IC	TC7S08F	
RL117	24011102	Res, Chip	1kΩ	J 1/20W	QX038	A6030630	IC	TC7S08F	
RL118	24011102	Res, Chip	1kΩ	J 1/20W	QX201	23906219	IC	CXA3026Q	
RL119	24011102	Res, Chip	1kΩ	J 1/20W	QX202	23906235	IC	MB814265-60	
RL120	24011102	Res, Chip	1kΩ	J 1/20W	QX203	23906235	IC	MB814265-60	
RL121	24011102	Res, Chip	1kΩ	J 1/20W	QX204	B0508347	IC	TC203E2651AF	
RL123	24011102	Res, Chip	1kΩ	J 1/20W	QX205	23906235	IC	MB814265-60	
RL125	24011103	Res, Chip	10kΩ	J 1/20W	QX206	23906235	IC	MB814265-60	
RL126	24011103	Res, Chip	10kΩ	J 1/20W					
RL127	24011103	Res, Chip	10kΩ	J 1/20W					

LOCATION NUMBER	PART NUMBER	DESCRIPTION
QX301	23906388	IC CXA3197R
QX401	23906219	IC CXA3026Q
QX402	23906235	IC MB814265-60
QX403	23906235	IC MB814265-60
QX404	B0508347	IC TC203E2651AF
QX405	23906235	IC MB814265-60
QX406	23906235	IC MB814265-60
QX501	23906388	IC CXA3197R
QX601	23906219	IC CXA3026Q
QX602	23906235	IC MB814265-60
QX603	23906235	IC MB814265-60
QX604	B0508347	IC TC203E2651AF
QX605	23906235	IC MB814265-60
QX606	23906235	IC MB814265-60
QX701	23906388	IC CXA3197R
QX801	23906389	IC EPP6016QC208
QX802	23906390	IC EPC1LC20
QX803	23906218	IC CXA3106Q
QX804	B0489205	IC TC74AC04F
QX805	B0488060	IC TC74HC541AF
QX808	A6030630	IC TC7S08F
QX809	23906234	IC M62320FP
QX810	A6030107	IC TC7S14F
QX811	23319214	IC MC33078M
- TRANSISTORS -		
QX022	A6549570	Transistor, Chip 2SA1586-Y
QX023	A6335470	Transistor, Chip 2SC2712-Y
QX024	A6335470	Transistor, Chip 2SC2712-Y
QX025	A6365620	Transistor, Chip 2SC4116-Y
QX026	A6541130	Transistor, Chip 2SA1162-Y
QX027	A6541130	Transistor, Chip 2SA1162-Y
QX302	A6549570	Transistor, Chip 2SA1586-Y
QX502	A6549570	Transistor, Chip 2SA1586-Y
QX702	A6549570	Transistor, Chip 2SA1586-Y
QX807	A6365620	Transistor, Chip 2SC4116-Y
- DIODES -		
DX001	A7150800	Diode, Chip 1SS187
DX002	23118313	Diode, Chip RD6.2M
- COILS -		
LX003	23103793	Coil, Chip MMZ2012S121A
LX004	23103793	Coil, Chip MMZ2012S121A
LX005	23103793	Coil, Chip MMZ2012S121A
LX007	23103793	Coil, Chip MMZ2012S121A
LX008	23103793	Coil, Chip MMZ2012S121A
LX009	23103880	Coil, Choke TEM2011Y
LX010	23103793	Coil, Chip MMZ2012S121A
LX011	23103793	Coil, Chip MMZ2012S121A
LX012	23103793	Coil, Chip MMZ2012S121A
LX013	23103880	Coil, Choke TEM2011Y
LX014	23103793	Coil, Chip MMZ2012S121A
LX015	23103793	Coil, Chip MMZ2012S121A
LX016	23103793	Coil, Chip MMZ2012S121A
LX017	23103793	Coil, Chip MMZ2012S121A
LX018	23103793	Coil, Chip MMZ2012S121A
LX019	23103793	Coil, Chip MMZ2012S121A
LX020	23103793	Coil, Chip MMZ2012S121A
LX201	23103793	Coil, Chip MMZ2012S121A
LX202	23103793	Coil, Chip MMZ2012S121A
LX205	23103793	Coil, Chip MMZ2012S121A
LX206	23103793	Coil, Chip MMZ2012S121A
LX207	23103793	Coil, Chip MMZ2012S121A
LX401	23103793	Coil, Chip MMZ2012S121A
LX402	23103793	Coil, Chip MMZ2012S121A
LX405	23103793	Coil, Chip MMZ2012S121A
LX406	23103793	Coil, Chip MMZ2012S121A
LX407	23103793	Coil, Chip MMZ2012S121A
LX601	23103793	Coil, Chip MMZ2012S121A
LX602	23103793	Coil, Chip MMZ2012S121A
LX605	23103793	Coil, Chip MMZ2012S121A
LX606	23103793	Coil, Chip MMZ2012S121A
LX607	23103793	Coil, Chip MMZ2012S121A
LX801	23103793	Coil, Chip MMZ2012S121A
LX802	23103793	Coil, Chip MMZ2012S121A
LX803	24000824	Chip Jumper
LX806	23103793	Coil, Chip MMZ2012S121A

LOCATION NUMBER	PART NUMBER	DESCRIPTION
- CAPACITORS -		
CX001	24092538	Cap, Chip 1 μ F Z 10V
CX002	24092538	Cap, Chip 1 μ F Z 10V
CX003	24092538	Cap, Chip 1 μ F Z 10V
CX004	24092538	Cap, Chip 1 μ F Z 10V
CX005	24092538	Cap, Chip 1 μ F Z 10V
CX006	24092538	Cap, Chip 1 μ F Z 10V
CX007	24092538	Cap, Chip 1 μ F Z 10V
CX008	24092538	Cap, Chip 1 μ F Z 10V
CX009	24092538	Cap, Chip 1 μ F Z 10V
CX010	24092538	Cap, Chip 1 μ F Z 10V
CX011	24092538	Cap, Chip 1 μ F Z 10V
CX012	24092538	Cap, Chip 1 μ F Z 10V
CX013	24092538	Cap, Chip 1 μ F Z 10V
CX014	24092538	Cap, Chip 1 μ F Z 10V
CX015	24092538	Cap, Chip 1 μ F Z 10V
CX016	24092538	Cap, Chip 1 μ F Z 10V
CX019	24092399	Cap, Chip 0.1 μ F Z 16V
CX020	24092538	Cap, Chip 1 μ F Z 10V
CX021	24092538	Cap, Chip 1 μ F Z 10V
CX035	24092538	Cap, Chip 1 μ F Z 10V
CX044	24092538	Cap, Chip 1 μ F Z 10V
CX046	24092538	Cap, Chip 1 μ F Z 10V
CX072	24108101	Cap, Chip 100pF J 50V
CX073	24108101	Cap, Chip 100pF J 50V
CX074	24108101	Cap, Chip 100pF J 50V
CX076	24108101	Cap, Chip 100pF J 50V
CX077	24108101	Cap, Chip 100pF J 50V
CX078	24108101	Cap, Chip 100pF J 50V
CX079	24108101	Cap, Chip 100pF J 50V
CX080	24108101	Cap, Chip 100pF J 50V
CX081	24092538	Cap, Chip 1 μ F Z 10V
CX083	24088080	Cap, Chip 33 μ F M 10V
CX084	24108101	Cap, Chip 100pF J 50V
CX085	24088951	Cap, Chip 6.8 μ F M 16V
CX086	24092538	Cap, Chip 1 μ F Z 10V
CX087	24092538	Cap, Chip 1 μ F Z 10V
CX088	24088951	Cap, Chip 6.8 μ F M 16V
CX089	24088951	Cap, Chip 6.8 μ F M 16V
CX090	24092538	Cap, Chip 1 μ F Z 10V
CX091	24092538	Cap, Chip 1 μ F Z 10V
CX092	24088951	Cap, Chip 6.8 μ F M 16V
CX093	24088951	Cap, Chip 6.8 μ F M 16V
CX094	24092538	Cap, Chip 1 μ F Z 10V
CX095	24092538	Cap, Chip 1 μ F Z 10V
CX096	24088951	Cap, Chip 6.8 μ F M 16V
CX097	24088951	Cap, Chip 6.8 μ F M 16V
CX098	24092538	Cap, Chip 1 μ F Z 10V
CX099	24092538	Cap, Chip 1 μ F Z 10V
CX100	24088079	Cap, Chip 10 μ F M 10V
CX101	24108101	Cap, Chip 100pF J 50V
CX102	24108101	Cap, Chip 100pF J 50V
CX103	24108101	Cap, Chip 100pF J 50V
CX104	24108101	Cap, Chip 100pF J 50V
CX105	24108101	Cap, Chip 100pF J 50V
CX106	24108101	Cap, Chip 100pF J 50V
CX107	24108101	Cap, Chip 100pF J 50V
CX108	24108101	Cap, Chip 100pF J 50V
CX109	24108101	Cap, Chip 100pF J 50V
CX110	24108101	Cap, Chip 100pF J 50V
CX111	24108101	Cap, Chip 100pF J 50V
CX112	24108101	Cap, Chip 100pF J 50V
CX113	24108101	Cap, Chip 100pF J 50V
CX114	24108101	Cap, Chip 100pF J 50V
CX115	24108101	Cap, Chip 100pF J 50V
CX126	24108101	Cap, Chip 100pF J 50V
CX127	24109103	Cap, Chip 0.01 μ F K 25V
CX128	24109103	Cap, Chip 0.01 μ F K 25V
CX130	24108101	Cap, Chip 100pF J 50V
CX131	24109122	Cap, Chip 1200pF K 50V
CX132	24092463	Cap, Chip 0.22 μ F K 16V
CX133	24092538	Cap, Chip 1 μ F Z 10V
CX134	24092538	Cap, Chip 1 μ F Z 10V
CX135	24092538	Cap, Chip 1 μ F Z 10V
CX136	24092538	Cap, Chip 1 μ F Z 10V

LOCATION	PART NUMBER	DESCRIPTION	
CX637	24092538	Cap, Chip	1 μ F Z 10V
CX657	24092538	Cap, Chip	1 μ F Z 10V
CX701	24088079	Cap, Chip	10 μ F M 10V
CX702	24092538	Cap, Chip	1 μ F Z 10V
CX703	24092538	Cap, Chip	1 μ F Z 10V
CX704	24092538	Cap, Chip	1 μ F Z 10V
CX705	24092538	Cap, Chip	1 μ F Z 10V
CX706	24092538	Cap, Chip	1 μ F Z 10V
CX801	24108101	Cap, Chip	100pF J 50V
CX811	24108101	Cap, Chip	100pF J 50V
CX812	24109122	Cap, Chip	1200pF K 50V
CX813	24092399	Cap, Chip	0.1 μ F Z 16V
CX814	24092463	Cap, Chip	0.22 μ F K 16V
CX815	24092538	Cap, Chip	1 μ F Z 10V
CX816	24092538	Cap, Chip	1 μ F Z 10V
CX817	24092538	Cap, Chip	1 μ F Z 10V
CX818	24092538	Cap, Chip	1 μ F Z 10V
CX819	24092538	Cap, Chip	1 μ F Z 10V
CX820	24092538	Cap, Chip	1 μ F Z 10V
CX821	24092538	Cap, Chip	1 μ F Z 10V
CX822	24092538	Cap, Chip	1 μ F Z 10V
CX823	24092538	Cap, Chip	1 μ F Z 10V
CX824	24092538	Cap, Chip	1 μ F Z 10V
CX831	24092538	Cap, Chip	1 μ F Z 10V
CX851	24092538	Cap, Chip	1 μ F Z 10V
CX852	24092538	Cap, Chip	1 μ F Z 10V
CX853	24092538	Cap, Chip	1 μ F Z 10V
CX854	24092538	Cap, Chip	1 μ F Z 10V
CX855	24092538	Cap, Chip	1 μ F Z 10V
CX856	24092538	Cap, Chip	1 μ F Z 10V
CX857	24092538	Cap, Chip	1 μ F Z 10V
CX858	24092538	Cap, Chip	1 μ F Z 10V
CX859	24092538	Cap, Chip	1 μ F Z 10V
CX860	24092538	Cap, Chip	1 μ F Z 10V
CX861	24092538	Cap, Chip	1 μ F Z 10V
CX862	24092538	Cap, Chip	1 μ F Z 10V
CX863	24092538	Cap, Chip	1 μ F Z 10V
CX864	24092538	Cap, Chip	1 μ F Z 10V
CX865	24092538	Cap, Chip	1 μ F Z 10V
CX866	24092538	Cap, Chip	1 μ F Z 10V
CX867	24092538	Cap, Chip	1 μ F Z 10V
CX868	24092538	Cap, Chip	1 μ F Z 10V
CX869	24092538	Cap, Chip	1 μ F Z 10V
CX871	24108101	Cap, Chip	100pF J 50V
CX872	24108101	Cap, Chip	100pF J 50V
CX873	24108101	Cap, Chip	100pF J 50V
CX874	24108101	Cap, Chip	100pF J 50V
CX875	24108101	Cap, Chip	100pF J 50V
CX876	24108101	Cap, Chip	100pF J 50V
CX878	24108101	Cap, Chip	100pF J 50V
CX879	24108101	Cap, Chip	100pF J 50V
CX880	24108101	Cap, Chip	100pF J 50V
CX881	24108101	Cap, Chip	100pF J 50V
CX882	24108101	Cap, Chip	100pF J 50V
CX883	24108101	Cap, Chip	100pF J 50V
CX884	24108101	Cap, Chip	100pF J 50V
CX885	24092538	Cap, Chip	1 μ F Z 10V
CX888	24092538	Cap, Chip	1 μ F Z 10V
CX889	24092538	Cap, Chip	1 μ F Z 10V
CX890	24092178	Cap, Chip	0.1 μ F K 25V
CX891	24092538	Cap, Chip	1 μ F Z 10V
CX892	24092538	Cap, Chip	1 μ F Z 10V
- RESISTORS -			
R958	24011104	Res, Chip	100k Ω J 1/20W
RX004	24011474	Res, Chip	470k Ω J 1/20W
RX046	24011470	Res, Chip	47 Ω J 1/20W
RX049	24011102	Res, Chip	1k Ω J 1/20W
RX050	24011101	Res, Chip	100 Ω J 1/20W
RX051	24011101	Res, Chip	100 Ω J 1/20W
RX052	24011101	Res, Chip	100 Ω J 1/20W
RX053	24011470	Res, Chip	47 Ω J 1/20W
RX054	24011470	Res, Chip	47 Ω J 1/20W
RX055	24011470	Res, Chip	47 Ω J 1/20W
RX056	24011470	Res, Chip	47 Ω J 1/20W
RX057	24011101	Res, Chip	100 Ω J 1/20W

LOCATION	PART NUMBER	DESCRIPTION	
RX058	24872101	Res, Chip	100 Ω J 1/16W
RX059	24011302	Res, Chip	3k Ω J 1/20W
RX060	24011102	Res, Chip	1k Ω J 1/20W
RX061	24011302	Res, Chip	3k Ω J 1/20W
RX062	24011102	Res, Chip	1k Ω J 1/20W
RX063	24011302	Res, Chip	3k Ω J 1/20W
RX064	24011102	Res, Chip	1k Ω J 1/20W
RX065	24011152	Res, Chip	1.5 k Ω J 1/20W
RX066	24011102	Res, Chip	1k Ω J 1/20W
RX067	24011101	Res, Chip	100 Ω J 1/20W
RX068	24011101	Res, Chip	100 Ω J 1/20W
RX069	24011101	Res, Chip	100 Ω J 1/20W
RX070	24011101	Res, Chip	100 Ω J 1/20W
RX071	24011101	Res, Chip	100 Ω J 1/20W
RX072	24011101	Res, Chip	100 Ω J 1/20W
RX073	24011101	Res, Chip	100 Ω J 1/20W
RX074	24011101	Res, Chip	100 Ω J 1/20W
RX075	24011101	Res, Chip	100 Ω J 1/20W
RX076	24011101	Res, Chip	100 Ω J 1/20W
RX077	24011101	Res, Chip	100 Ω J 1/20W
RX078	24011101	Res, Chip	100 Ω J 1/20W
RX079	24011101	Res, Chip	100 Ω J 1/20W
RX080	24011470	Res, Chip	47 Ω J 1/20W
RX081	24011470	Res, Chip	47 Ω J 1/20W
RX092	24011470	Res, Chip	47 Ω J 1/20W
RX094	24011151	Res, Chip	150 Ω J 1/20W
RX096	24011561	Res, Chip	560 Ω J 1/20W
RX097	24011100	Res, Chip	10 Ω J 1/20W
RX098	24011100	Res, Chip	10 Ω J 1/20W
RX102	24011470	Res, Chip	47 Ω J 1/20W
RX103	24011470	Res, Chip	47 Ω J 1/20W
RX104	24011911	Res, Chip	910 Ω J 1/20W
RX105	24011472	Res, Chip	4.7k Ω J 1/20W
RX106	24011302	Res, Chip	3k Ω J 1/20W
RX107	24011202	Res, Chip	2k Ω J 1/20W
RX110	24011332	Res, Chip	3.3k Ω J 1/20W
RX111	24000424	Res, Chip	1.6k Ω F 1/16W
RX112	24011470	Res, Chip	47 Ω J 1/20W
RX113	24011332	Res, Chip	3.3k Ω J 1/20W
RX114	24011102	Res, Chip	1k Ω J 1/20W
RX115	24011102	Res, Chip	1k Ω J 1/20W
RX116	24011470	Res, Chip	47 Ω J 1/20W
RX117	24011103	Res, Chip	10k Ω J 1/20W
RX118	24011180	Res, Chip	18 Ω J 1/20W
RX119	24011470	Res, Chip	47 Ω J 1/20W
RX120	24011152	Res, Chip	1.5k Ω J 1/20W
RX121	24011102	Res, Chip	1k Ω J 1/20W
RX122	24011302	Res, Chip	3k Ω J 1/20W
RX123	24011102	Res, Chip	1k Ω J 1/20W
RX124	24011302	Res, Chip	3k Ω J 1/20W
RX125	24011102	Res, Chip	1k Ω J 1/20W
RX126	24011561	Res, Chip	560 Ω J 1/20W
RX127	24011561	Res, Chip	560 Ω J 1/20W
RX128	24011470	Res, Chip	47 Ω J 1/20W
RX201	24011470	Res, Chip	47 Ω J 1/20W
RX204	24872221	Res, Chip	220 Ω J 1/16W
RX205	24872221	Res, Chip	220 Ω J 1/16W
RX210	24011103	Res, Chip	10k Ω J 1/20W
RX211	24011103	Res, Chip	10k Ω J 1/20W
RX212	24011103	Res, Chip	10k Ω J 1/20W
RX213	24011103	Res, Chip	10k Ω J 1/20W
RX214	24011103	Res, Chip	10k Ω J 1/20W
RX215	24011103	Res, Chip	10k Ω J 1/20W
RX216	24011103	Res, Chip	10k Ω J 1/20W
RX220	24872221	Res, Chip	220 Ω J 1/16W
RX221	24872221	Res, Chip	220 Ω J 1/16W
RX225	24011102	Res, Chip	1k Ω J 1/20W
RX301	24011103	Res, Chip	10k Ω J 1/20W
RX302	24871111	Res, Chip	110 Ω J 1/8W
RX303	24011222	Res, Chip	2.2k Ω J 1/20W
RX304	24011103	Res, Chip	10k Ω J 1/20W
RX305	24011103	Res, Chip	10k Ω J 1/20W
RX306	24011103	Res, Chip	10k Ω J 1/20W
RX307	24011103	Res, Chip	10k Ω J 1/20W
RX313	24871111	Res, Chip	110 Ω J 1/8W

LOCATION	PART NUMBER	DESCRIPTION	
RX381	24019346	Res, Block	100Ωx4 J 1/16W
RX382	24019346	Res, Block	100Ωx4 J 1/16W
RX383	24019346	Res, Block	100Ωx4 J 1/16W
RX384	24019346	Res, Block	100Ωx4 J 1/16W
RX401	24011470	Res, Chip	47Ω J 1/20W
RX410	24011103	Res, Chip	10kΩ J 1/20W
RX411	24011103	Res, Chip	10kΩ J 1/20W
RX412	24011103	Res, Chip	10kΩ J 1/20W
RX413	24011103	Res, Chip	10kΩ J 1/20W
RX414	24011103	Res, Chip	10kΩ J 1/20W
RX415	24011103	Res, Chip	10kΩ J 1/20W
RX416	24011103	Res, Chip	10kΩ J 1/20W
RX425	24011102	Res, Chip	1kΩ J 1/20W
RX501	24011103	Res, Chip	10kΩ J 1/20W
RX502	24871111	Res, Chip	110Ω J 1/8W
RX503	24011222	Res, Chip	2.2kΩ J 1/20W
RX504	24011103	Res, Chip	10kΩ J 1/20W
RX505	24011103	Res, Chip	10kΩ J 1/20W
RX506	24011103	Res, Chip	10kΩ J 1/20W
RX507	24011103	Res, Chip	10kΩ J 1/20W
RX513	24871111	Res, Chip	110Ω J 1/8W
RX581	24019346	Res, Block	100Ωx4 J 1/16W
RX582	24019346	Res, Block	100Ωx4 J 1/16W
RX583	24019346	Res, Block	100Ωx4 J 1/16W
RX584	24019346	Res, Block	100Ωx4 J 1/16W
RX601	24011470	Res, Chip	47Ω J 1/20W
RX610	24011103	Res, Chip	10kΩ J 1/20W
RX611	24011103	Res, Chip	10kΩ J 1/20W
RX612	24011103	Res, Chip	10kΩ J 1/20W
RX613	24011103	Res, Chip	10kΩ J 1/20W
RX614	24011103	Res, Chip	10kΩ J 1/20W
RX615	24011103	Res, Chip	10kΩ J 1/20W
RX616	24011103	Res, Chip	10kΩ J 1/20W
RX625	24011102	Res, Chip	1kΩ J 1/20W
RX701	24011103	Res, Chip	10kΩ J 1/20W
RX702	24871151	Res, Chip	150Ω J 1/8W
RX703	24011222	Res, Chip	2.2kΩ J 1/20W
RX704	24011103	Res, Chip	10kΩ J 1/20W
RX705	24011103	Res, Chip	10kΩ J 1/20W
RX706	24011103	Res, Chip	10kΩ J 1/20W
RX707	24011103	Res, Chip	10kΩ J 1/20W
RX713	24871151	Res, Chip	150Ω J 1/8W
RX781	24019346	Res, Block	100Ωx4 J 1/16W
RX782	24019346	Res, Block	100Ωx4 J 1/16W
RX783	24019346	Res, Block	100Ωx4 J 1/16W
RX784	24019346	Res, Block	100Ωx4 J 1/16W
RX801	24011470	Res, Chip	47Ω J 1/20W
RX802	24011470	Res, Chip	47Ω J 1/20W
RX811	24011332	Res, Chip	3.3kΩ J 1/20W
RX812	24000424	Res, Chip	1.6kΩ F 1/16W
RX813	24000445	Res, Chip Jumper	0Ω
RX814	24000445	Res, Chip Jumper	0Ω
RX815	24011330	Res, Chip	33Ω J 1/20W
RX817	24011470	Res, Chip	47Ω J 1/20W
RX818	24011470	Res, Chip	47Ω J 1/20W
RX831	24011470	Res, Chip	47Ω J 1/20W
RX832	24011470	Res, Chip	47Ω J 1/20W
RX833	24011470	Res, Chip	47Ω J 1/20W
RX835	24011470	Res, Chip	47Ω J 1/20W
RX836	24011470	Res, Chip	47Ω J 1/20W
RX851	24011102	Res, Chip	1kΩ J 1/20W
RX852	24011102	Res, Chip	1kΩ J 1/20W
RX854	24011100	Res, Chip	10Ω J 1/20W
RX855	24011100	Res, Chip	10Ω J 1/20W
RX856	24011470	Res, Chip	47Ω J 1/20W
RX857	24011470	Res, Chip	47Ω J 1/20W
RX858	24011470	Res, Chip	47Ω J 1/20W
RX859	24011470	Res, Chip	47Ω J 1/20W
RX860	24011470	Res, Chip	47Ω J 1/20W
RX861	24011470	Res, Chip	47Ω J 1/20W
RX862	24011470	Res, Chip	47Ω J 1/20W
RX863	24011470	Res, Chip	47Ω J 1/20W
RX864	24011470	Res, Chip	47Ω J 1/20W
RX865	24011100	Res, Chip	10Ω J 1/20W
RX866	24011470	Res, Chip	47Ω J 1/20W

LOCATION	PART NUMBER	DESCRIPTION	
RX867	24011470	Res, Chip	47Ω J 1/20W
RX868	24011470	Res, Chip	47Ω J 1/20W
RX869	24011470	Res, Chip	47Ω J 1/20W
RX870	24011470	Res, Chip	47Ω J 1/20W
RX871	24011470	Res, Chip	47Ω J 1/20W
RX872	24011470	Res, Chip	47Ω J 1/20W
RX873	24011470	Res, Chip	47Ω J 1/20W
RX875	24011101	Res, Chip	100Ω J 1/20W
RX887	24011331	Res, Chip	330Ω J 1/20W
RX896	24000445	Res, Chip Jumper	0Ω
RX897	24000445	Res, Chip Jumper	0Ω
RX898	24000445	Res, Chip Jumper	0Ω
RX899	24000445	Res, Chip Jumper	0Ω
RX900	24011101	Res, Chip	100Ω J 1/20W
RX901	24011101	Res, Chip	100Ω J 1/20W
RX903	24011331	Res, Chip	330Ω J 1/20W
RX904	24011331	Res, Chip	330Ω J 1/20W
RX905	24011101	Res, Chip	100Ω J 1/20W
RX906	24011103	Res, Chip	10kΩ J 1/20W
RX907	24011103	Res, Chip	10kΩ J 1/20W
RX908	24011561	Res, Chip	560Ω J 1/20W
RX951	24019346	Res, Block	100Ωx4 J 1/16W
RX952	24019346	Res, Block	100Ωx4 J 1/16W
RX953	24019346	Res, Block	100Ωx4 J 1/16W
RX954	24019346	Res, Block	100Ωx4 J 1/16W
RX955	24019346	Res, Block	100Ωx4 J 1/16W
RX956	24019346	Res, Block	100Ωx4 J 1/16W
RX957	24019346	Res, Block	100Ωx4 J 1/16W
RX958	24019346	Res, Block	100Ωx4 J 1/16W
RX959	24019346	Res, Block	100Ωx4 J 1/16W
RX960	24019346	Res, Block	100Ωx4 J 1/16W
RX961	24019346	Res, Block	100Ωx4 J 1/16W
RX962	24019346	Res, Block	100Ωx4 J 1/16W
- MISCELLANEOUS -			
PX001	23368671	Plug	50P, 1mm
PX005	23903048	Socket	FPC/FFC
PX006	23368671	Plug	50P, 1mm
ZX001	23103823	Filter	TEM2027D
ZX003	23153491	Crystal	SG81C42M
ZX004	23103823	Filter	TEM2027D
ZX006	23906419	Photo Reciever	RPM676CBRS02
ZX201	23103013	Filter	TEM2020T
ZX202	23103823	Filter	TEM2027D
ZX301	23103013	Filter	TEM2020T
ZX401	23103013	Filter	TEM2020T
ZX402	23103823	Filter	TEM2027D
ZX501	23103013	Filter	TEM2020T
ZX601	23103013	Filter	TEM2020T
ZX602	23103823	Filter	TEM2027D
ZX701	23103013	Filter	TEM2020T
■U0031	23781606	PC Board Assy	Video
- INTEGRATED CIRCUITS -			
QB001	70129738	IC	PQ20VZ1U
QB002	23906212	IC	LM2991SX
QB003	A6030620	IC	TC7S04F
QB004	23906217	IC	MAX4121CSA
QB005	23906217	IC	MAX4121CSA
QB006	23906217	IC	MAX4121CSA
QB007	23906216	IC	MAX497CSE
QB008	B0484924	IC	TC74HCT240AF
QB009	A6030620	IC	TC7S04F
QB010	A6030630	IC	TC7S08F
QB011	23906215	IC	M52348FP
QB012	23906214	IC	M52347FP
QB019	A6030630	IC	TC7S08F
QB020	A6030630	IC	TC7S08F
QB024	23905532	IC	M52320SP
QB025	23905091	IC	CXA1315M
QB036	23905590	IC	M52055FP
QB037	A6030897	IC	TC4W53F
QB038	A6030897	IC	TC4W53F
QB039	A6030640	IC	TC7S32F
QL001	70200127	IC	UPD4721GS
QV001	23906213	IC	CXA1855Q

LOCATION NUMBER	PART NUMBER	DESCRIPTION
QV002	B0410688	IC
QV003	70128490	IC
QV005	23905459	IC
QV006	23905460	IC
QV007	23905462	IC
QV008	23905461	IC
QV045	23905091	IC
QV050	70129738	IC
QV051	70129738	IC
QV052	70129738	IC
QV053	70129738	IC
QV054	70129738	IC
QV055	70129738	IC
QV056	A6030620	IC
QV057	23906234	IC
QV058	A6030620	IC
- TRANSISTORS -		
QA07	A6335470	Transistor, Chip
QA08	A6004020	Transistor, Chip
QB013	A6335470	Transistor, Chip
QB014	A6335470	Transistor, Chip
QB015	23314062	Transistor, Chip
QB016	23314062	Transistor, Chip
QB017	23314062	Transistor, Chip
QB026	A6004020	Transistor, Chip
QB027	A6004020	Transistor, Chip
QB028	A6004020	Transistor, Chip
QB029	A6004020	Transistor, Chip
QB030	23314062	Transistor, Chip
QB031	23314062	Transistor, Chip
QB032	23314062	Transistor, Chip
QB033	A6365620	Transistor, Chip
QB034	A6365620	Transistor, Chip
QB035	A6365620	Transistor, Chip
QV013	A6365620	Transistor, Chip
QV014	A6365620	Transistor, Chip
QV015	A6365620	Transistor, Chip
QV016	A6365620	Transistor, Chip
QV017	A6365620	Transistor, Chip
QV018	A6549570	Transistor, Chip
QV019	A6365620	Transistor, Chip
QV020	A6549570	Transistor, Chip
QV021	A6365620	Transistor, Chip
QV022	A6365620	Transistor, Chip
QV023	A6365620	Transistor, Chip
QV024	A6365620	Transistor, Chip
QV025	A6365620	Transistor, Chip
QV026	A6365620	Transistor, Chip
QV027	A6365620	Transistor, Chip
QV028	A6365620	Transistor, Chip
QV029	A6365620	Transistor, Chip
QV030	A6549570	Transistor, Chip
QV031	A6365620	Transistor, Chip
QV041	A6365620	Transistor, Chip
QV042	A6365620	Transistor, Chip
QV059	A6365620	Transistor, Chip
QV060	A6365620	Transistor, Chip
- DIODES -		
DB001	A7150800	Diode, Chip
DB002	23118315	Diode, Chip
DB003	A7152750	Diode, Chip
DB004	A7152750	Diode, Chip
DB005	A7152750	Diode, Chip
DB007	23118313	Diode, Chip
DB008	23118313	Diode, Chip
DB009	23118313	Diode, Chip
DB010	23118313	Diode, Chip
DB011	A7152750	Diode, Chip
DB012	A7152750	Diode, Chip
DB013	A7152750	Diode, Chip
DB014	23118313	Diode, Chip
DB015	23118313	Diode, Chip
DB016	A7150800	Diode, Chip
DB017	A7150800	Diode, Chip
DB018	23118287	Diode, Chip

LOCATION NUMBER	PART NUMBER	DESCRIPTION
DB019	23118313	Diode, Chip
DB020	23118313	Diode, Chip
DB021	23118313	Diode, Chip
DB022	23118313	Diode, Chip
DL001	23118313	Diode, Chip
DL002	23118293	Diode, Chip
DL003	23118293	Diode, Chip
DL004	23118293	Diode, Chip
DL005	23118293	Diode, Chip
DL006	23118293	Diode, Chip
DL007	23118293	Diode, Chip
DL008	23118293	Diode, Chip
DL009	23118293	Diode, Chip
DV001	23118287	Diode, Chip
DV002	23118287	Diode, Chip
DV003	23118287	Diode, Chip
DV004	23118293	Diode, Chip
DV005	23118307	Diode, Chip
DV006	23118287	Diode, Chip
DV007	23118313	Diode, Chip
DV008	23118313	Diode, Chip
DV009	23118313	Diode, Chip
DV010	23118313	Diode, Chip
DV011	23118313	Diode, Chip
DV012	23118313	Diode, Chip
DV013	23118313	Diode, Chip
DV014	23118313	Diode, Chip
DV015	23118313	Diode, Chip
DV016	23118287	Diode, Chip
DV017	23118281	Diode, Chip
DV018	23118313	Diode, Chip
- COILS -		
LB001	23103880	Coil, Choke
LB002	23103880	Coil, Choke
LB003	23245847	Coil, Chip
LV001	23245839	Coil, Chip
LV002	23245832	Coil, Chip
LV003	23245835	Coil, Chip
LV004	23245835	Coil, Chip
LV005	23245847	Coil, Chip
LV006	23245847	Coil, Chip
LV007	23245828	Coil, Chip
LV008	23245837	Coil, Chip
LV009	23245847	Coil, Chip
LV010	23245830	Coil, Chip
- CAPACITORS -		
CA01	24619113	Cap, Chip
CA02	24619113	Cap, Chip
CA03	24619113	Cap, Chip
CA04	24619113	Cap, Chip
CA23	24092399	Cap, Chip
CA26	24619113	Cap, Chip
CB001	24619102	Cap, Chip
CB002	24088953	Cap, Chip
CB003	24619106	Cap, Chip
CB004	24088953	Cap, Chip
CB005	24092399	Cap, Chip
CB006	24619088	Cap, Electrolytic
CB007	24619088	Cap, Electrolytic
CB008	24619088	Cap, Electrolytic
CB009	24109102	Cap, Chip
CB010	24092399	Cap, Chip
CB011	24109102	Cap, Chip
CB012	24092399	Cap, Chip
CB013	24109102	Cap, Chip
CB014	24092399	Cap, Chip
CB015	24109102	Cap, Chip
CB016	24092399	Cap, Chip
CB017	24109102	Cap, Chip
CB018	24092399	Cap, Chip
CB019	24109102	Cap, Chip
CB020	24092399	Cap, Chip
CB024	24092399	Cap, Chip
CB025	24092399	Cap, Chip
CB026	24092399	Cap, Chip

LOCATION	PART			DESCRIPTION	LOCATION	PART			DESCRIPTION
NUMBER	NUMBER				NUMBER	NUMBER			
CB027	24092399	Cap, Chip	0.1 μ F	Z 16V	CB107	24109103	Cap, Chip	0.01 μ F	K 25V
CB028	24619102	Cap, Chip	47 μ F	M 16V	CB108	24619102	Cap, Chip	47 μ F	M 16V
CB029	24619102	Cap, Chip	47 μ F	M 16V	CB109	24619100	Cap, Chip	10 μ F	M 16V
CB030	24619100	Cap, Chip	10 μ F	M 16V	CB110	24109103	Cap, Chip	0.01 μ F	K 25V
CB031	24092399	Cap, Chip	0.1 μ F	Z 16V	CB111	24619102	Cap, Chip	47 μ F	M 16V
CB032	24092399	Cap, Chip	0.1 μ F	Z 16V	CB113	24619106	Cap, Chip	33 μ F	M 25V
CB037	24092399	Cap, Chip	0.1 μ F	Z 16V	CB114	24105270	Cap, Chip	27pF	J 50V
CB038	24109103	Cap, Chip	0.01 μ F	K 25V	CB115	24105270	Cap, Chip	27pF	J 50V
CB039	24619102	Cap, Chip	47 μ F	M 16V	CB116	24105270	Cap, Chip	27pF	J 50V
CB040	24109103	Cap, Chip	0.01 μ F	K 25V	CB117	24092399	Cap, Chip	0.1 μ F	Z 16V
CB041	24619102	Cap, Chip	47 μ F	M 16V	CB118	24619102	Cap, Chip	47 μ F	M 16V
CB042	24109103	Cap, Chip	0.01 μ F	K 25V	CB119	24619102	Cap, Chip	47 μ F	M 16V
CB043	24619102	Cap, Chip	47 μ F	M 16V	CB120	24619102	Cap, Chip	47 μ F	M 16V
CB044	24619100	Cap, Chip	10 μ F	M 16V	CB121	24619102	Cap, Chip	47 μ F	M 16V
CB045	24109103	Cap, Chip	0.01 μ F	K 25V	CB122	24619102	Cap, Chip	47 μ F	M 16V
CB046	24619100	Cap, Chip	10 μ F	M 16V	CB123	24619102	Cap, Chip	47 μ F	M 16V
CB047	24109103	Cap, Chip	0.01 μ F	K 25V	CB124	24619102	Cap, Chip	47 μ F	M 16V
CB048	24619100	Cap, Chip	10 μ F	M 16V	CB125	24092399	Cap, Chip	0.1 μ F	Z 16V
CB049	24109103	Cap, Chip	0.01 μ F	K 25V	CB126	24092399	Cap, Chip	0.1 μ F	Z 16V
CB050	24109103	Cap, Chip	0.01 μ F	K 25V	CB127	24295106	Cap, Chip	10 μ F	M 25V
CB051	24619102	Cap, Chip	47 μ F	M 16V	CL001	24092399	Cap, Chip	0.1 μ F	Z 16V
CB052	24109103	Cap, Chip	0.01 μ F	K 25V	CL002	24619113	Cap, Chip	1 μ F	M 50V
CB053	24619102	Cap, Chip	47 μ F	M 16V	CL003	24619113	Cap, Chip	1 μ F	M 50V
CB054	24109103	Cap, Chip	0.01 μ F	K 25V	CL004	24619113	Cap, Chip	1 μ F	M 50V
CB055	24619102	Cap, Chip	47 μ F	M 16V	CL005	24619113	Cap, Chip	1 μ F	M 50V
CB056	24109103	Cap, Chip	0.01 μ F	K 25V	CL006	24619113	Cap, Chip	1 μ F	M 50V
CB057	24109103	Cap, Chip	0.01 μ F	K 25V	CV001	24619102	Cap, Chip	47 μ F	M 16V
CB058	24109103	Cap, Chip	0.01 μ F	K 25V	CV002	24619102	Cap, Chip	47 μ F	M 16V
CB059	24619102	Cap, Chip	47 μ F	M 16V	CV003	24109103	Cap, Chip	0.01 μ F	K 25V
CB060	24109103	Cap, Chip	0.01 μ F	K 25V	CV004	24109103	Cap, Chip	0.01 μ F	K 25V
CB061	24109103	Cap, Chip	0.01 μ F	K 25V	CV006	24619100	Cap, Chip	10 μ F	M 16V
CB062	24109103	Cap, Chip	0.01 μ F	K 25V	CV007	24109103	Cap, Chip	0.01 μ F	K 25V
CB063	24109103	Cap, Chip	0.01 μ F	K 25V	CV008	24105120	Cap, Chip	12pF	J 50V
CB065	24109103	Cap, Chip	0.01 μ F	K 25V	CV009	24105120	Cap, Chip	12pF	J 50V
CB066	24619102	Cap, Chip	47 μ F	M 16V	CV010	24619141	Cap, Chip	2.2 μ F	M 50V
CB067	24109103	Cap, Chip	0.01 μ F	K 25V	CV011	24619100	Cap, Chip	10 μ F	M 16V
CB068	24619102	Cap, Chip	47 μ F	M 16V	CV012	24105120	Cap, Chip	12pF	J 50V
CB069	24109103	Cap, Chip	0.01 μ F	K 25V	CV013	24105120	Cap, Chip	12pF	J 50V
CB070	24619102	Cap, Chip	47 μ F	M 16V	CV014	24109103	Cap, Chip	0.01 μ F	K 25V
CB071	24109103	Cap, Chip	0.01 μ F	K 25V	CV015	24109103	Cap, Chip	0.01 μ F	K 25V
CB072	24109103	Cap, Chip	0.01 μ F	K 25V	CV016	24092538	Cap, Chip	1 μ F	Z 10V
CB073	24619103	Cap, Chip	4.7 μ F	M 25V	CV017	24105220	Cap, Chip	22 μ F	J 50V
CB074	24619103	Cap, Chip	4.7 μ F	M 25V	CV018	24105180	Cap, Chip	18pF	J 50V
CB075	24619103	Cap, Chip	4.7 μ F	M 25V	CV019	24105100	Cap, Chip	10pF	J 50V
CB076	24619103	Cap, Chip	4.7 μ F	M 25V	CV020	24109103	Cap, Chip	0.01 μ F	K 25V
CB077	24619113	Cap, Chip	1 μ F	M 50V	CV021	24092538	Cap, Chip	1 μ F	Z 10V
CB078	24619100	Cap, Chip	10 μ F	M 16V	CV022	24619100	Cap, Chip	10 μ F	M 16V
CB079	24108221	Cap, Chip	220pF	J 50V	CV023	24619113	Cap, Chip	1 μ F	M 50V
CB080	24105101	Cap, Chip	100pF	J 50V	CV024	24109103	Cap, Chip	0.01 μ F	K 25V
CB081	24619102	Cap, Chip	47 μ F	M 16V	CV025	24092399	Cap, Chip	0.1 μ F	Z 16V
CB082	24109103	Cap, Chip	0.01 μ F	K 25V	CV026	24619100	Cap, Chip	10 μ F	M 16V
CB083	24092399	Cap, Chip	0.1 μ F	Z 16V	CV027	24619102	Cap, Chip	47 μ F	M 16V
CB084	24092399	Cap, Chip	0.1 μ F	Z 16V	CV028	24092538	Cap, Chip	1 μ F	Z 10V
CB085	24619103	Cap, Chip	4.7 μ F	M 25V	CV029	24619100	Cap, Chip	10 μ F	M 16V
CB086	24619100	Cap, Chip	10 μ F	M 16V	CV030	24105220	Cap, Chip	22 μ F	J 50V
CB087	24619100	Cap, Chip	10 μ F	M 16V	CV031	24092538	Cap, Chip	1 μ F	Z 10V
CB088	24109103	Cap, Chip	0.01 μ F	K 25V	CV032	24105390	Cap, Chip	39pF	J 50V
CB089	24109103	Cap, Chip	0.01 μ F	K 25V	CV033	24109103	Cap, Chip	0.01 μ F	K 25V
CB090	24619100	Cap, Chip	10 μ F	M 16V	CV034	24105181	Cap, Chip	180pF	J 50V
CB091	24109103	Cap, Chip	0.01 μ F	K 25V	CV035	24109103	Cap, Chip	0.01 μ F	K 25V
CB092	24109103	Cap, Chip	0.01 μ F	K 25V	CV036	24109103	Cap, Chip	0.01 μ F	K 25V
CB093	24619100	Cap, Chip	10 μ F	M 16V	CV037	24109103	Cap, Chip	0.01 μ F	K 25V
CB094	24109103	Cap, Chip	0.01 μ F	K 25V	CV038	24109103	Cap, Chip	0.01 μ F	K 25V
CB095	24109103	Cap, Chip	0.01 μ F	K 25V	CV039	24619100	Cap, Chip	10 μ F	M 16V
CB096	24109103	Cap, Chip	0.01 μ F	K 25V	CV040	24092538	Cap, Chip	1 μ F	Z 10V
CB097	24109103	Cap, Chip	0.01 μ F	K 25V	CV041	24109103	Cap, Chip	0.01 μ F	K 25V
CB098	24619100	Cap, Chip	10 μ F	M 16V	CV042	24619100	Cap, Chip	10 μ F	M 16V
CB099	24109103	Cap, Chip	0.01 μ F	K 25V	CV043	24092399	Cap, Chip	0.1 μ F	Z 16V
CB100	24619100	Cap, Chip	10 μ F	M 16V	CV044	24092399	Cap, Chip	0.1 μ F	Z 16V
CB101	24109103	Cap, Chip	0.01 μ F	K 25V	CV045	24092399	Cap, Chip	0.1 μ F	Z 16V
CB102	24619100	Cap, Chip	10 μ F	M 16V	CV046	24092399	Cap, Chip	0.1 μ F	Z 16V
CB103	24109103	Cap, Chip	0.01 μ F	K 25V	CV047	24092399	Cap, Chip	0.1 μ F	Z 16V
CB104	24619113	Cap, Chip	1 μ F	M 50V	CV048	24109103	Cap, Chip	0.01 μ F	K 25V
CB105	24619113	Cap, Chip	1 μ F	M 50V	CV049	24109103	Cap, Chip	0.01 μ F	K 25V
CB106	24619113	Cap, Chip	1 μ F	M 50V	CV050	24109103	Cap, Chip	0.01 μ F	K 25V

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
CV051	24092399	Cap, Chip	0.1 μ F	Z 16V
CV052	24619112	Cap, Chip	0.47 μ F	M 50V
CV053	24815332	Cap, Chip	3300pF	K 50V
CV054	24092399	Cap, Chip	0.1 μ F	Z 16V
CV055	24092399	Cap, Chip	0.1 μ F	Z 16V
CV056	24092178	Cap, Chip	0.1 μ F	K 25V
CV057	24092178	Cap, Chip	0.1 μ F	K 25V
CV058	24815332	Cap, Chip	3300pF	K 50V
CV059	24105180	Cap, Chip	18pF	J 50V
CV060	24105130	Cap, Chip	13pF	J 50V
CV061	24092178	Cap, Chip	0.1 μ F	K 25V
CV062	24105100	Cap, Chip	10pF	J 50V
CV063	24105181	Cap, Chip	180pF	J 50V
CV064	24109103	Cap, Chip	0.01 μ F	K 25V
CV065	24619100	Cap, Chip	10 μ F	M 16V
CV066	24109103	Cap, Chip	0.01 μ F	K 25V
CV067	24092538	Cap, Chip	1 μ F	Z 10V
CV068	24619100	Cap, Chip	10 μ F	M 16V
CV069	24109103	Cap, Chip	0.01 μ F	K 25V
CV070	24109103	Cap, Chip	0.01 μ F	K 25V
CV071	24619100	Cap, Chip	10 μ F	M 16V
CV072	24092399	Cap, Chip	0.1 μ F	Z 16V
CV073	24092399	Cap, Chip	0.1 μ F	Z 16V
CV074	24092399	Cap, Chip	0.1 μ F	Z 16V
CV075	24092399	Cap, Chip	0.1 μ F	Z 16V
CV076	24092399	Cap, Chip	0.1 μ F	Z 16V
CV077	24092399	Cap, Chip	0.1 μ F	Z 16V
CV078	24109103	Cap, Chip	0.01 μ F	K 25V
CV079	24109103	Cap, Chip	0.01 μ F	K 25V
CV081	24100473	Cap, Chip	4700pF	Z 25V
CV082	24092399	Cap, Chip	0.1 μ F	Z 16V
CV083	24092399	Cap, Chip	0.1 μ F	Z 16V
CV084	24109103	Cap, Chip	0.01 μ F	K 25V
CV085	24109103	Cap, Chip	0.01 μ F	K 25V
CV086	24109103	Cap, Chip	0.01 μ F	K 25V
CV087	24109103	Cap, Chip	0.01 μ F	K 25V
CV088	24109103	Cap, Chip	0.01 μ F	K 25V
CV089	24109103	Cap, Chip	0.01 μ F	K 25V
CV090	24619100	Cap, Chip	10 μ F	M 16V
CV091	24619113	Cap, Chip	1 μ F	M 50V
CV092	24092294	Cap, Chip	0.33 μ F	Z 16V
CV093	24619113	Cap, Chip	1 μ F	M 50V
CV094	24092399	Cap, Chip	0.1 μ F	Z 16V
CV095	24092399	Cap, Chip	0.1 μ F	Z 16V
CV096	24092399	Cap, Chip	0.1 μ F	Z 16V
CV097	24619100	Cap, Chip	10 μ F	M 16V
CV098	24109103	Cap, Chip	0.01 μ F	K 25V
CV111	24619102	Cap, Chip	47 μ F	M 16V
CV112	24619100	Cap, Chip	10 μ F	M 16V
CV113	24619102	Cap, Chip	47 μ F	M 16V
CV114	24109103	Cap, Chip	0.01 μ F	K 25V
CV115	24109103	Cap, Chip	0.01 μ F	K 25V
CV125	24109103	Cap, Chip	0.01 μ F	K 25V
CV126	24619100	Cap, Chip	10 μ F	M 16V
CV127	24619102	Cap, Chip	47 μ F	M 16V
CV128	24109103	Cap, Chip	0.01 μ F	K 25V
CV129	24088953	Cap, Chip	33 μ F	M 16V
CV130	24109103	Cap, Chip	0.01 μ F	K 25V
CV131	24619102	Cap, Chip	47 μ F	M 16V
CV132	24109103	Cap, Chip	0.01 μ F	K 25V
CV133	24088953	Cap, Chip	33 μ F	M 16V
CV134	24109103	Cap, Chip	0.01 μ F	K 25V
CV135	24619106	Cap, Chip	33 μ F	M 25V
CV136	24109103	Cap, Chip	0.01 μ F	K 25V
CV137	24088978	Cap, Chip	22 μ F	M 20V
CV138	24109103	Cap, Chip	0.01 μ F	K 25V
CV139	24619102	Cap, Chip	47 μ F	M 16V
CV140	24109103	Cap, Chip	0.01 μ F	K 25V
CV141	24088953	Cap, Chip	33 μ F	M 16V
CV142	24109103	Cap, Chip	0.01 μ F	K 25V
CV143	24619102	Cap, Chip	47 μ F	M 16V
CV144	24109103	Cap, Chip	0.01 μ F	K 25V
CV145	24088953	Cap, Chip	33 μ F	M 16V
CV146	24109103	Cap, Chip	0.01 μ F	K 25V
CV147	24619106	Cap, Chip	33 μ F	M 25V

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
CV148	24109103	Cap, Chip	0.01 μ F	K 25V
CV149	24088978	Cap, Chip	22 μ F	M 20V
CV150	24109103	Cap, Chip	0.01 μ F	K 25V
CV151	24619100	Cap, Chip	10 μ F	M 16V
CV152	24109103	Cap, Chip	0.01 μ F	K 25V
CV153	24092399	Cap, Chip	0.1 μ F	Z 16V
CV154	24092399	Cap, Chip	0.1 μ F	Z 16V
CV155	24105101	Cap, Chip	100pF	J 50V
CV156	24100103	Cap, Chip	0.01 μ F	Z 50V
CV157	24092538	Cap, Chip	1 μ F	Z 10V
CV158	24092399	Cap, Chip	0.1 μ F	Z 16V
- RESISTORS -				
RA01	24011474	Res, Chip	470k Ω	J 1/20W
RA02	24011562	Res, Chip	5.6k Ω	J 1/20W
RA03	24011474	Res, Chip	470k Ω	J 1/20W
RA04	24011562	Res, Chip	5.6k Ω	J 1/20W
RA05	24011474	Res, Chip	470k Ω	J 1/20W
RA06	24011562	Res, Chip	5.6k Ω	J 1/20W
RA07	24011474	Res, Chip	470k Ω	J 1/20W
RA08	24011562	Res, Chip	5.6k Ω	J 1/20W
RA35	24011332	Res, Chip	3.3k Ω	J 1/20W
RA36	24011334	Res, Chip	330k Ω	J 1/20W
RA37	24011100	Res, Chip	10 Ω	J 1/20W
RA38	24011100	Res, Chip	10 Ω	J 1/20W
RA39	24011100	Res, Chip	10 Ω	J 1/20W
RA40	24011562	Res, Chip	5.6k Ω	J 1/20W
RB001	24000590	Res, Chip	3k Ω	F 1/16W
RB002	24000573	Res, Chip	1k Ω	F 1/16W
RB003	24000558	Res, Chip	750 Ω	F 1/16W
RB004	24000458	Res, Chip	240 Ω	F 1/16W
RB005	24872471	Res, Chip	470 Ω	J 1/16W
RB007	24872820	Res, Chip	82 Ω	J 1/16W
RB008	24872820	Res, Chip	82 Ω	J 1/16W
RB009	24872820	Res, Chip	82 Ω	J 1/16W
RB011	24011103	Res, Chip	10k Ω	J 1/20W
RB012	24011103	Res, Chip	10k Ω	J 1/20W
RB013	24011103	Res, Chip	10k Ω	J 1/20W
RB014	24011103	Res, Chip	10k Ω	J 1/20W
RB015	24011103	Res, Chip	10k Ω	J 1/20W
RB016	24011104	Res, Chip	100k Ω	J 1/20W
RB017	24011104	Res, Chip	100k Ω	J 1/20W
RB018	24011750	Res, Chip	75 Ω	J 1/20W
RB019	24011220	Res, Chip	22 Ω	J 1/20W
RB020	24011220	Res, Chip	22 Ω	J 1/20W
RB021	24011750	Res, Chip	75 Ω	J 1/20W
RB022	24011220	Res, Chip	22 Ω	J 1/20W
RB023	24011220	Res, Chip	22 Ω	J 1/20W
RB024	24011220	Res, Chip	22 Ω	J 1/20W
RB025	24011750	Res, Chip	75 Ω	J 1/20W
RB026	24011220	Res, Chip	22 Ω	J 1/20W
RB027	24011220	Res, Chip	22 Ω	J 1/20W
RB028	24011220	Res, Chip	22 Ω	J 1/20W
RB029	24011220	Res, Chip	22 Ω	J 1/20W
RB031	24872750	Res, Chip	75 Ω	J 1/16W
RB032	24872750	Res, Chip	75 Ω	J 1/16W
RB033	24872750	Res, Chip	75 Ω	J 1/16W
RB034	24011151	Res, Chip	150 Ω	J 1/20W
RB035	24011152	Res, Chip	1.5k Ω	J 1/20W
RB036	24011102	Res, Chip	1k Ω	J 1/20W
RB038	24011152	Res, Chip	1.5k Ω	J 1/20W
RB039	24011102	Res, Chip	1k Ω	J 1/20W
RB041	24011152	Res, Chip	1.5k Ω	J 1/20W
RB042	24011102	Res, Chip	1k Ω	J 1/20W
RB044	24011223	Res, Chip	22k Ω	J 1/20W
RB046	24011101	Res, Chip	100 Ω	J 1/20W
RB047	24011220	Res, Chip	22 Ω	J 1/20W
RB048	24872221	Res, Chip	220 Ω	J 1/16W
RB049	24011220	Res, Chip	22 Ω	J 1/20W
RB050	24011220	Res, Chip	22 Ω	J 1/20W
RB051	24872221	Res, Chip	220 Ω	J 1/16W
RB052	24011220	Res, Chip	22 Ω	J 1/20W
RB053	24011220	Res, Chip	22 Ω	J 1/20W
RB054	24872221	Res, Chip	220 Ω	J 1/16W
RB055	24011220	Res, Chip	22 Ω	J 1/20W
RB056	24011330	Res, Chip	33 Ω	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RB059	24011221	Res, Chip	220Ω	J 1/20W	RB151 24011152 Res, Chip	1.5kΩ	J 1/20W
RB060	24011103	Res, Chip	10kΩ	J 1/20W	RB152 24011152 Res, Chip	1.5kΩ	J 1/20W
RB061	24011221	Res, Chip	220Ω	J 1/20W	RB153 24011152 Res, Chip	1.5kΩ	J 1/20W
RB062	24011103	Res, Chip	10kΩ	J 1/20W	RB154 24011101 Res, Chip	100Ω	J 1/20W
RB063	24011183	Res, Chip	18kΩ	J 1/20W	RB155 24011101 Res, Chip	100Ω	J 1/20W
RB064	24011222	Res, Chip	2. 2kΩ	J 1/20W	RB156 24011103 Res, Chip	10kΩ	J 1/20W
RB065	24011183	Res, Chip	18kΩ	J 1/20W	RB157 24011103 Res, Chip	10kΩ	J 1/20W
RB066	24011222	Res, Chip	2. 2kΩ	J 1/20W	RB158 24011103 Res, Chip	10kΩ	J 1/20W
RB067	24011563	Res, Chip	56kΩ	J 1/20W	RL001 24011301 Res, Chip	300Ω	J 1/20W
RB068	24000419	Res, Chip	4. 3kΩ	F 1/16W	RL002 24011301 Res, Chip	300Ω	J 1/20W
RB069	24000408	Res, Chip	43kΩ	F 1/16W	RV001 24872750 Res, Chip	75Ω	J 1/16W
RB070	24011101	Res, Chip	100Ω	J 1/20W	RV002 24011101 Res, Chip	100Ω	J 1/20W
RB071	24011101	Res, Chip	100Ω	J 1/20W	RV003 24011101 Res, Chip	100Ω	J 1/20W
RB072	24011101	Res, Chip	100Ω	J 1/20W	RV004 24872750 Res, Chip	75Ω	J 1/16W
RB074	24011101	Res, Chip	100Ω	J 1/20W	RV005 24872750 Res, Chip	75Ω	J 1/16W
RB075	24011101	Res, Chip	100Ω	J 1/20W	RV013 24011101 Res, Chip	100Ω	J 1/20W
RB077	24011562	Res, Chip	5. 6kΩ	J 1/20W	RV014 24011101 Res, Chip	100Ω	J 1/20W
RB079	24011562	Res, Chip	5. 6kΩ	J 1/20W	RV015 24011471 Res, Chip	470Ω	J 1/20W
RB081	24011562	Res, Chip	5. 6kΩ	J 1/20W	RV016 24011152 Res, Chip	1. 5kΩ	J 1/20W
RB082	24011103	Res, Chip	10kΩ	J 1/20W	RV017 24011101 Res, Chip	100Ω	J 1/20W
RB083	24011822	Res, Chip	8. 2kΩ	J 1/20W	RV018 24011821 Res, Chip	820Ω	J 1/20W
RB084	24011822	Res, Chip	8. 2kΩ	J 1/20W	RV019 24011471 Res, Chip	470Ω	J 1/20W
RB085	24011822	Res, Chip	8. 2kΩ	J 1/20W	RV020 24011392 Res, Chip	3. 9kΩ	J 1/20W
RB086	24011822	Res, Chip	8. 2kΩ	J 1/20W	RV021 24011564 Res, Chip	560kΩ	J 1/20W
RB087	24011471	Res, Chip	470Ω	J 1/20W	RV022 24011101 Res, Chip	100Ω	J 1/20W
RB088	24011100	Res, Chip	10Ω	J 1/20W	RV023 24011821 Res, Chip	820Ω	J 1/20W
RB089	24872821	Res, Chip	820Ω	J 1/16W	RV024 24011471 Res, Chip	470Ω	J 1/20W
RB090	24011100	Res, Chip	10Ω	J 1/20W	RV026 24011101 Res, Chip	100Ω	J 1/20W
RB091	24872821	Res, Chip	820Ω	J 1/16W	RV027 24011101 Res, Chip	100Ω	J 1/20W
RB092	24011100	Res, Chip	10Ω	J 1/20W	RV028 24011102 Res, Chip	1kΩ	J 1/20W
RB093	24872821	Res, Chip	820Ω	J 1/16W	RV029 24011821 Res, Chip	820Ω	J 1/20W
RB094	24011562	Res, Chip	5. 6kΩ	J 1/20W	RV030 24011332 Res, Chip	3. 3kΩ	J 1/20W
RB095	24011822	Res, Chip	8. 2kΩ	J 1/20W	RV031 24011332 Res, Chip	3. 3kΩ	J 1/20W
RB096	24011103	Res, Chip	10kΩ	J 1/20W	RV032 24011822 Res, Chip	8. 2kΩ	J 1/20W
RB099	24011103	Res, Chip	10kΩ	J 1/20W	RV033 24011332 Res, Chip	3. 3kΩ	J 1/20W
RB102	24011103	Res, Chip	10kΩ	J 1/20W	RV034 24011103 Res, Chip	10kΩ	J 1/20W
RB105	24011103	Res, Chip	10kΩ	J 1/20W	RV035 24011102 Res, Chip	1kΩ	J 1/20W
RB108	24011101	Res, Chip	100Ω	J 1/20W	RV036 24011102 Res, Chip	1kΩ	J 1/20W
RB109	24011101	Res, Chip	100Ω	J 1/20W	RV037 24011152 Res, Chip	1. 5kΩ	J 1/20W
RB115	24011101	Res, Chip	100Ω	J 1/20W	RV038 24011102 Res, Chip	1kΩ	J 1/20W
RB116	24011101	Res, Chip	100Ω	J 1/20W	RV039 24011102 Res, Chip	1kΩ	J 1/20W
RB117	24011101	Res, Chip	100Ω	J 1/20W	RV040 24011152 Res, Chip	1. 5kΩ	J 1/20W
RB118	24011101	Res, Chip	100Ω	J 1/20W	RV041 24011101 Res, Chip	100Ω	J 1/20W
RB119	24011221	Res, Chip	220Ω	J 1/20W	RV042 24011101 Res, Chip	100Ω	J 1/20W
RB120	24011221	Res, Chip	220Ω	J 1/20W	RV043 24011182 Res, Chip	1. 8kΩ	J 1/20W
RB121	24011223	Res, Chip	22kΩ	J 1/20W	RV044 24011103 Res, Chip	10kΩ	J 1/20W
RB122	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV045 24011182 Res, Chip	1. 8kΩ	J 1/20W
RB123	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV046 24011821 Res, Chip	820Ω	J 1/20W
RB124	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV047 24011271 Res, Chip	270Ω	J 1/20W
RB125	24011103	Res, Chip	10kΩ	J 1/20W	RV048 24011182 Res, Chip	1. 8kΩ	J 1/20W
RB126	24011103	Res, Chip	10kΩ	J 1/20W	RV049 24011132 Res, Chip	1. 3kΩ	J 1/20W
RB127	24011103	Res, Chip	10kΩ	J 1/20W	RV050 24011132 Res, Chip	1. 3kΩ	J 1/20W
RB128	24872471	Res, Chip	470Ω	J 1/16W	RV051 24011102 Res, Chip	1kΩ	J 1/20W
RB129	24011560	Res, Chip	56Ω	J 1/20W	RV052 24011153 Res, Chip	15kΩ	J 1/20W
RB130	24872471	Res, Chip	470Ω	J 1/16W	RV053 24011101 Res, Chip	100Ω	J 1/20W
RB131	24011560	Res, Chip	56Ω	J 1/20W	RV054 24011101 Res, Chip	100Ω	J 1/20W
RB132	24872471	Res, Chip	470Ω	J 1/16W	RV055 24011823 Res, Chip	82kΩ	J 1/20W
RB133	24011560	Res, Chip	56Ω	J 1/20W	RV056 24011271 Res, Chip	270Ω	J 1/20W
RB134	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV057 24011101 Res, Chip	100Ω	J 1/20W
RB135	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV058 24011100 Res, Chip	10Ω	J 1/20W
RB136	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV059 24011332 Res, Chip	3. 3kΩ	J 1/20W
RB137	24872821	Res, Chip	820Ω	J 1/16W	RV060 24011222 Res, Chip	2. 2kΩ	J 1/20W
RB138	24872821	Res, Chip	820Ω	J 1/16W	RV061 24011101 Res, Chip	100Ω	J 1/20W
RB139	24872821	Res, Chip	820Ω	J 1/16W	RV062 24011101 Res, Chip	100Ω	J 1/20W
RB140	24011101	Res, Chip	100Ω	J 1/20W	RV063 24011101 Res, Chip	100Ω	J 1/20W
RB141	24011101	Res, Chip	100Ω	J 1/20W	RV064 24011101 Res, Chip	100Ω	J 1/20W
RB142	24011221	Res, Chip	220Ω	J 1/20W	RV065 24011101 Res, Chip	100Ω	J 1/20W
RB143	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV066 24011182 Res, Chip	1. 8kΩ	J 1/20W
RB144	24011101	Res, Chip	100Ω	J 1/20W	RV067 24011272 Res, Chip	2. 7kΩ	J 1/20W
RB145	24011221	Res, Chip	220Ω	J 1/20W	RV068 24011102 Res, Chip	1kΩ	J 1/20W
RB146	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV069 24011102 Res, Chip	1kΩ	J 1/20W
RB147	24011101	Res, Chip	100Ω	J 1/20W	RV070 24011392 Res, Chip	3. 9kΩ	J 1/20W
RB148	24011221	Res, Chip	220Ω	J 1/20W	RV071 24011102 Res, Chip	1kΩ	J 1/20W
RB149	24011222	Res, Chip	2. 2kΩ	J 1/20W	RV072 24011100 Res, Chip	10Ω	J 1/20W
RB150	24011101	Res, Chip	100Ω	J 1/20W	RV073 24011182 Res, Chip	1. 8kΩ	J 1/20W

LOCATION	PART NUMBER	DESCRIPTION		
	RV074	Res, Chip	2.7kΩ	J 1/20W
	RV075	Res, Chip	4.7kΩ	J 1/20W
	RV076	Res, Chip	100Ω	J 1/20W
	RV077	Res, Chip	1.8kΩ	J 1/20W
	RV078	Res, Chip	2.7kΩ	J 1/20W
	RV079	Res, Chip	1kΩ	J 1/20W
	RV080	Res, Chip	1kΩ	J 1/20W
	RV081	Res, Chip	3.9kΩ	J 1/20W
	RV082	Res, Chip	1kΩ	J 1/20W
	RV083	Res, Chip	10Ω	J 1/20W
	RV084	Res, Chip	1.8kΩ	J 1/20W
	RV085	Res, Chip	2.7kΩ	J 1/20W
	RV086	Res, Chip	4.7kΩ	J 1/20W
	RV087	Res, Chip	330Ω	J 1/20W
	RV088	Res, Chip	330Ω	J 1/20W
	RV089	Res, Chip	560Ω	J 1/20W
	RV090	Res, Chip	2.2kΩ	J 1/20W
	RV092	Res, Chip	100Ω	J 1/20W
	RV093	Res, Chip	3.9kΩ	J 1/20W
	RV094	Res, Chip	3.9kΩ	J 1/20W
	RV095	Res, Chip	82kΩ	J 1/20W
	RV096	Res, Chip	1MΩ	J 1/20W
	RV100	Res, Chip	100Ω	J 1/20W
	RV101	Res, Chip	100Ω	J 1/20W
	RV111	Res, Chip	75Ω	J 1/20W
	RV112	Res, Chip	75Ω	J 1/20W
	RV113	Res, Chip	22kΩ	J 1/20W
	RV114	Res, Chip	15kΩ	J 1/20W
	RV115	Res, Chip	100Ω	J 1/20W
	RV116	Res, Chip	2.7kΩ	J 1/20W
	RV118	Res, Chip	22kΩ	J 1/20W
	RV119	Res, Chip	22kΩ	J 1/20W
	RV120	Res, Chip	100Ω	J 1/20W
	RV121	Res, Chip	2.7kΩ	J 1/20W
	RV125	Res, Chip	15kΩ	J 1/20W
	RV126	Res, Chip	15kΩ	J 1/20W
	RV127	Res, Chip	15kΩ	J 1/20W
	RV128	Res, Chip	15kΩ	J 1/20W
	RV129	Res, Chip	100Ω	J 1/20W
	RV130	Res, Chip	100Ω	J 1/20W
	RV131	Res, Chip	6.2kΩ	F 1/16W
	RV132	Res, Chip	1kΩ	F 1/16W
	RV133	Res, Chip	5.1kΩ	F 1/16W
	RV134	Res, Chip	270Ω	F 1/16W
	RV135	Res, Chip	1kΩ	F 1/16W
	RV136	Res, Chip	8.2kΩ	F 1/16W
	RV137	Res, Chip	390Ω	F 1/16W
	RV138	Res, Chip	1kΩ	F 1/16W
	RV139	Res, Chip	3kΩ	F 1/16W
	RV140	Res, Chip	1kΩ	F 1/16W
	RV141	Res, Chip	6.2kΩ	F 1/16W
	RV142	Res, Chip	1kΩ	F 1/16W
	RV143	Res, Chip	8.2kΩ	F 1/16W
	RV144	Res, Chip	390Ω	F 1/16W
	RV145	Res, Chip	1kΩ	F 1/16W
	RV146	Res, Chip	4.7kΩ	J 1/20W
	RV147	Res, Chip	100Ω	J 1/20W
	RV150	Res, Chip	100Ω	J 1/20W
	RV151	Res, Chip	100Ω	J 1/20W
	RV152	Res, Chip	100Ω	J 1/20W
	RV153	Res, Chip	100Ω	J 1/20W
	RV154	Res, Chip	100Ω	J 1/20W
	RV155	Res, Chip	100Ω	J 1/20W
	RV156	Res, Chip	100Ω	J 1/20W
	RV157	Res, Chip	100Ω	J 1/20W
	RV158	Res, Chip	100Ω	J 1/20W
	RV160	Res, Chip	4.7kΩ	J 1/20W
	RV161	Res, Chip	100Ω	J 1/20W
	RV163	Res, Chip	4.7kΩ	J 1/20W
	RV164	Res, Chip	4.7kΩ	J 1/20W
	RV165	Res, Chip	4.7kΩ	J 1/20W
	RV166	Res, Chip	4.7kΩ	J 1/20W
	RV167	Res, Chip	4.7kΩ	J 1/20W
	RV168	Res, Chip	4.7kΩ	J 1/20W
	RV169	Res, Chip	4.7kΩ	J 1/20W

LOCATION	PART NUMBER	DESCRIPTION		
	RV170	Res, Chip	12kΩ	J 1/20W
	RV171	Res, Chip	3.9kΩ	J 1/20W
	RV172	Res, Chip	100Ω	J 1/20W
	RV173	Res, Chip	1kΩ	J 1/20W
	RV174	Res, Chip	470Ω	J 1/20W
	RV175	Res, Chip	820Ω	J 1/20W
	- MISCELLANEOUS -			
	JB001	Res, Chip Jumper	0Ω	
	JB002	Res, Chip Jumper	0Ω	
	JB003	Res, Chip Jumper	0Ω	
	PV001	Socket	DSUB	
	PV002	Socket	DSUB	
	PV003	Earphone Jack		
	PV004	Phono Jack	S-VHS, 4P	
	PV005	Phono Jack	3P	
	PV008	Plug	7P, 2.5mm	
	PV009	Socket	FPC/FFC	
	PV010	Socket	1mm, 50P	
	PV012	Plug	26P	
	PV013	Plug	13P	
	SV001	Switch	SPVF11	
	ZV001	Crystal, 3.58MHz		
	ZV002	Crystal	4.43MHz	
	ZV003	Filter	LPF	
	ZV004	Filter	LPF	
	ZV005	Filter	TEM2027D	
	ZV006	Filter	TEM2027D	
	ZV007	Filter	TEM2027D	
	ZV008	Filter	TEM2027D	
	ZV009	Filter	TEM2027D	
	ZV011	Filter	TEM2027D	
	ZV012	Filter	TEM2027D	
	U0032	PC Board Assy	Audio	
	- INTEGRATED CIRCUITS -			
	QA01	IC	M5222FP	
	QA02	IC	LA4425A	
	- TRANSISTORS -			
	QA03	Transistor, Chip	2SC2712-Y	
	QA04	Transistor, Chip	2SC2712-Y	
	QA05	Transistor, Chip	RN1402	
	- DIODES -			
	DA01	Diode, Chip	1SS187	
	DA02	Diode, Chip	RD12M	
	DA03	Diode, Chip	RD12M	
	- CAPACITORS -			
	CA11	Cap, Chip	10μF	M 16V
	CA12	Cap, Chip	10μF	M 16V
	CA13	Cap, Chip	2.2μF	M 50V
	CA14	Cap, Chip	2.2μF	M 50V
	CA15	Cap, Chip	2.2μF	M 50V
	CA16	Cap, Electrolytic	470μF	M 16V
	CA17	Cap, Electrolytic	470μF	M 16V
	CA18	Cap, Chip	2.2μF	M 50V
	CA20	Cap, Chip	0.1μF	Z 16V
	CA21	Cap, Chip	10μF	M 16V
	CA22	Cap, Chip	10μF	M 16V
	CA24	Cap, Chip	0.1μF	Z 16V
	CA25	Cap, Chip	0.1μF	Z 16V
	- RESISTORS -			
	RA11	Res, Chip	47kΩ	J 1/20W
	RA12	Res, Chip	47kΩ	J 1/20W
	RA13	Res, Chip	100kΩ	J 1/20W
	RA14	Res, Chip	3.9kΩ	J 1/20W
	RA15	Res, Chip	47kΩ	J 1/20W
	RA16	Res, Chip	4.7kΩ	J 1/20W
	RA17	Res, Chip	12kΩ	J 1/20W
	RA18	Res, Chip	4.7kΩ	J 1/20W
	RA19	Res, Chip	12kΩ	J 1/20W
	RA20	Res, Chip	4.7kΩ	J 1/20W
	RA22	Res, Chip	620Ω	J 1/20W
	RA27	Res, Chip	100Ω	J 1/20W
	RA28	Res, Chip	100Ω	J 1/20W
	RA29	Res, Chip	1.8kΩ	J 1/20W
	RA30	Res, Chip	1kΩ	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RA31	24011104	Res, Chip	100kΩ	J 1/20W	RMO04 24011103 Res, Chip	10kΩ	J 1/20W
RA32	24011182	Res, Chip	1.8kΩ	J 1/20W	RMO05 24011302 Res, Chip	3kΩ	J 1/20W
RA33	24011102	Res, Chip	1kΩ	J 1/20W	RMO06 24011102 Res, Chip	1kΩ	J 1/20W
RA34	24011104	Res, Chip	100kΩ	J 1/20W	RMO08 24011101 Res, Chip	100Ω	J 1/20W
RA41	24011102	Res, Chip	1kΩ	J 1/20W	RMO09 24011104 Res, Chip	100kΩ	J 1/20W
RA42	24011102	Res, Chip	1kΩ	J 1/20W	RMO10 24011273 Res, Chip	27kΩ	J 1/20W
		- MISCELLANEOUS -			RMO11 24011183 Res, Chip	18kΩ	J 1/20W
PV006	23365444	Earphone Jack			RMO12 24011101 Res, Chip	100Ω	J 1/20W
PV007	23901448	Connector			RMO13 24011102 Res, Chip	1kΩ	J 1/20W
PV014	23902760	Socket	13P		RMO14 24011102 Res, Chip	1kΩ	J 1/20W
QA02C	70391354	Screw	3x6mm		RMO15 24011104 Res, Chip	100kΩ	J 1/20W
■U0041	23781073	PC Board Assy	Inverter, TLP511	RMO16 24011273 Res, Chip	27kΩ	J 1/20W	
		- INTEGRATED CIRCUITS -		RMO17 24011101 Res, Chip	100Ω	J 1/20W	
QM002	70129738	IC	PQ20VZ1U	RMO18 24011153 Res, Chip	15kΩ	J 1/20W	
QM007	70128490	IC	MM1031M	RMO19 24011102 Res, Chip	1kΩ	J 1/20W	
QM008	A6030620	IC	TC7S04F	RMO20 24011153 Res, Chip	15kΩ	J 1/20W	
		- TRANSISTORS -		RMO21 24011682 Res, Chip	6.8kΩ	J 1/20W	
QI001	A6014040	Transistor, Chip	RN2404	RMO22 24011102 Res, Chip	1kΩ	J 1/20W	
QI002	A6014040	Transistor, Chip	RN2404	RMO23 24011122 Res, Chip	1.2kΩ	J 1/20W	
QI003	23314142	Transistor	2SC3834	RMO24 24011101 Res, Chip	100Ω	J 1/20W	
QM001	A6014040	Transistor, Chip	RN2404	RMO25 24011222 Res, Chip	2.2kΩ	J 1/20W	
QM003	A6335477	Transistor, Chip	2SC2712-Y	RMO26 24011750 Res, Chip	75Ω	J 1/20W	
QM004	A6335477	Transistor, Chip	2SC2712-Y	RMO27 24011104 Res, Chip	100kΩ	J 1/20W	
QM005	A6335477	Transistor, Chip	2SC2712-Y	RMO28 24011102 Res, Chip	1kΩ	J 1/20W	
QM006	A6335477	Transistor, Chip	2SC2712-Y	RMO29 24011334 Res, Chip	330kΩ	J 1/20W	
		- DIODES -		RM999 24366101 Res, Carbon	100Ω	J 1/6W	
DI001	A7150800	Diode, Chip	1SS187		- MISCELLANEOUS -		
DI002	A7150800	Diode, Chip	1SS187	PM001 23368673 Plug	26P		
DI003	23118317	Diode, Chip	RD2. 4M-T1BB	PM007 23363252 Phono Jack			
DI004	23118317	Diode, Chip	RD2. 4M-T1BB	SM005 23145364 Switch, Slide	1C2P		
DI005	A7150800	Diode, Chip	1SS187	ZM001 23906419 Photo Reciever	RPM676CBRS02		
DI006	23316725	Diode, Zener	MTZJ15B	ZM002 23103823 Filter	TEM2027D		
DM001	23118313	Diode, Chip	RD6. 2M	ZM003 23107622 Filter	TEM1018		
DM002	A7150800	Diode, Chip	1SS187	■U0042 23781074 PC Board Assy	SW, TLP511		
DM003	A7150800	Diode, Chip	1SS187	- MISCELLANEOUS -			
DM004	23118313	Diode, Chip	RD6. 2M	SM001 23145226 Switch, Push	1C1P		
DM005	23118313	Diode, Chip	RD6. 2M	SM002 23145226 Switch, Push	1C1P		
		- COILS -		SM003 23145226 Switch, Push	1C1P		
LI001	23221746	Coil, Choke	TLN3155D	SM004 23145226 Switch, Push	1C1P		
△LI002	23217369	Power Transformer	TPW3382AD	■U501 70186900 P C Board Assy	Camera Video, TLP511		
LM001	23103880	Coil, Choke	TEM2011Y	- MISCELLANEOUS -			
LM002	23103880	Coil, Choke	TEM2011Y	Q103 70200150 IC	CXD1267AN		
		- CAPACITORS -		Q201 70200663 IC	HD49322BF		
CI001	24666331	Cap, Electrolytic	330μF	Q202 A6030893 IC	TC7W32FU		
CI002	24666470	Cap, Electrolytic	47μF	Q203 70200423 IC	HD49811TFA		
CI003	24815473	Cap, Chip	0.047μF	Q206 70128705 IC	MM1024AF		
CI004	24820392	Cap, Plastic	3900pF	Q301 A6030629 IC	TC7S04FU		
CM001	24619102	Cap, Chip	47μF	Q302 A6030791 IC	TC7W74FU		
CM002	24092399	Cap, Chip	0.1μF	Q303S 70200606 IC	6473337PROG		
CM003	24619102	Cap, Chip	47μF	Q304 70200127 IC	UPD4721GS		
CM004	24092399	Cap, Chip	0.1μF	Q305 70200430 IC	RN5VD27A		
CM005	24619102	Cap, Chip	47μF	Q306 70200656 IC	AK93C65AV		
CM007	24619102	Cap, Chip	47μF	Q801 B0370000 IC	TA78L05F		
CM008	24092399	Cap, Chip	0.1μF	Q802 70129738 IC	PQ20VZ1U		
CM010	24619100	Cap, Chip	10μF	Q803 70200328 IC	PQ05SZ1U		
CM011	24619100	Cap, Chip	10μF	Q806 A6030629 IC	TC7S04FU		
CM012	24619141	Cap, Chip	2.2μF		- TRANSISTORS -		
CM013	24092399	Cap, Chip	0.1μF		Q102 23314507 Transistor, Chip	2SC3931-C	
CM014	24665471	Cap, Electrolytic	470μF		Q204 A6063920 Transistor, Chip	2SK880-Y	
CM015	24092399	Cap, Chip	0.1μF		Q205 A6549570 Transistor, Chip	2SA1586-Y	
CM999	24591104	Cap, Plastic	0.1μF		Q307 23314351 Transistor, Chip	XN6213	
		- RESISTORS -		Q308 23314351 Transistor, Chip	XN6213		
RI001	24011822	Res, Chip	8.2kΩ	Q309 23314271 Transistor, Chip	UN5213		
RI002	24011103	Res, Chip	10kΩ	Q804 23314888 Transistor, Chip	UMZ1N		
RI003	24011242	Res, Chip	2.4kΩ	Q805 23314888 Transistor, Chip	UMZ1N		
RI004	24011182	Res, Chip	1.8kΩ		- DIODES -		
RI005	24011479	Res, Chip	4.7Ω		D101 23118041 Diode, Chip	MA111	
RI006	24011330	Res, Chip	33Ω		D102 A7154050 Diode, Chip	1SS301	
RI007	24011471	Res, Chip	47Ω		D103 23118041 Diode, Chip	MA111	
RI009	24019423	Posistor	PTH9M04BD471		D201 23118255 Diode, Chip	1T363-T8-T04	
RI10	24011102	Res, Chip	1kΩ		D801 23316895 Diode, Zener	DTZ8.2B	
RM001	24011100	Res, Chip	10Ω		D802 23316915 Diode, Zener	DTZ15C	
RM002	24011100	Res, Chip	10Ω		D803 A7155540 Diode, Chip	1SS372	
RM003	24011154	Res, Chip	150kΩ				

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
D804	A7154100	Diode, Chip - COILS -	1SS302
L201	23245858	Coil, Chip	TRF4100CC
L202	23245858	Coil, Chip	TRF4100CC
L203	23245858	Coil, Chip	TRF4100CC
L204	23245858	Coil, Chip	TRF4100CC
L205	23245858	Coil, Chip	TRF4100CC
L206	23245858	Coil, Chip	TRF4100CC
L302	23245858	Coil, Chip	TRF4100CC
L801	23245862	Coil, Chip	TRF4221CC
		- CAPACITORS -	
C101	24100104	Cap, Chip	0.1μF Z 25V
C102	24100104	Cap, Chip	0.1μF Z 25V
C103	24092538	Cap, Chip	1μF Z 10V
C104	24088080	Cap, Chip	33μF M 10V
C105	24105120	Cap, Chip	12pF J 50V
C106	24109103	Cap, Chip	0.01μF K 25V
C107	24100104	Cap, Chip	0.1μF Z 25V
C108	24088082	Cap, Chip	1μF M 35V
C109	24100104	Cap, Chip	0.1μF Z 25V
C110	24100104	Cap, Chip	0.1μF Z 25V
C111	24100104	Cap, Chip	0.1μF Z 25V
C112	24100104	Cap, Chip	0.1μF Z 25V
C113	24100104	Cap, Chip	0.1μF Z 25V
C114	24100104	Cap, Chip	0.1μF Z 25V
C201	24092441	Cap, Chip	1μF Z 16V
C203	24100104	Cap, Chip	0.1μF Z 25V
C204	24100104	Cap, Chip	0.1μF Z 25V
C205	24100104	Cap, Chip	0.1μF Z 25V
C207	24088080	Cap, Chip	33μF M 10V
C208	24092538	Cap, Chip	1μF Z 10V
C209	24100104	Cap, Chip	0.1μF Z 25V
C210	24100104	Cap, Chip	0.1μF Z 25V
C215	24100104	Cap, Chip	0.1μF Z 25V
C216	24088078	Cap, Chip	15μF M 6.3V
C217	24100104	Cap, Chip	0.1μF Z 25V
C218	24100104	Cap, Chip	0.1μF Z 25V
C219	24100104	Cap, Chip	0.1μF Z 25V
C220	24100104	Cap, Chip	0.1μF Z 25V
C221	24088080	Cap, Chip	33μF M 10V
C222	24105220	Cap, Chip	22μF J 50V
C223	24105220	Cap, Chip	22μF J 50V
C224	24105220	Cap, Chip	22μF J 50V
C225	24100104	Cap, Chip	0.1μF Z 25V
C227	24100104	Cap, Chip	0.1μF Z 25V
C228	24100104	Cap, Chip	0.1μF Z 25V
C229	24088966	Cap, Chip	10μF M 4V
C230	24088966	Cap, Chip	10μF M 4V
C231	24088966	Cap, Chip	10μF M 4V
C233	24088080	Cap, Chip	33μF M 10V
C234	24088078	Cap, Chip	15μF M 6.3V
C235	24100104	Cap, Chip	0.1μF Z 25V
C236	24105220	Cap, Chip	22μF J 50V
C238	24109102	Cap, Chip	1000pF K 50V
C239	24109102	Cap, Chip	1000pF K 50V
C240	24100104	Cap, Chip	0.1μF Z 25V
C241	24088080	Cap, Chip	33μF M 10V
C242	24100104	Cap, Chip	0.1μF Z 25V
C243	24092441	Cap, Chip	1μF Z 16V
C244	24619096	Cap, Chip	22μF M 6.3V
C245	24619098	Cap, Chip	100μF M 6.3V
C246	24619098	Cap, Chip	100μF M 6.3V
C247	24619096	Cap, Chip	22μF M 6.3V
C248	24100104	Cap, Chip	0.1μF Z 25V
C249	24100104	Cap, Chip	0.1μF Z 25V
C301	24100104	Cap, Chip	0.1μF Z 25V
C303	24100104	Cap, Chip	0.1μF Z 25V
C305	24100104	Cap, Chip	0.1μF Z 25V
C307	24088080	Cap, Chip	33μF M 10V
C314	24092441	Cap, Chip	1μF Z 16V
C315	24092441	Cap, Chip	1μF Z 16V
C316	24092441	Cap, Chip	1μF Z 16V
C318	24092441	Cap, Chip	1μF Z 16V
C319	24092441	Cap, Chip	1μF Z 16V
C320	24100104	Cap, Chip	0.1μF Z 25V

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
C801	24092538	Cap, Chip	1μF Z 10V
C802	24100104	Cap, Chip	0.1μF Z 25V
C803	24100104	Cap, Chip	0.1μF Z 25V
C804	24100104	Cap, Chip	0.1μF Z 25V
C805	24088078	Cap, Chip	15μF M 6.3V
C806	24100104	Cap, Chip	0.1μF Z 25V
C807	24088964	Cap, Chip	4.7μF M 20V
C808	24088080	Cap, Chip	33μF M 10V
C809	24619100	Cap, Chip	10μF M 16V
C810	24619106	Cap, Chip	33μF M 25V
C811	24619100	Cap, Chip	10μF M 16V
C812	24619100	Cap, Chip	10μF M 16V
C813	24100104	Cap, Chip	0.1μF Z 25V
C814	24100104	Cap, Chip	0.1μF Z 25V
		- RESISTORS -	
R101	24011105	Res, Chip	1MΩ J 1/20W
R102	24011104	Res, Chip	100kΩ J 1/20W
R103	24011393	Res, Chip	39kΩ J 1/20W
R104	24011101	Res, Chip	100Ω J 1/20W
R105	24011821	Res, Chip	820Ω J 1/20W
R106	24011101	Res, Chip	100Ω J 1/20W
R107	24011472	Res, Chip	4.7kΩ J 1/20W
R112	24011104	Res, Chip	100kΩ J 1/20W
R201	24011243	Res, Chip	24kΩ J 1/20W
R202	24011221	Res, Chip	220Ω J 1/20W
R203	24011221	Res, Chip	220Ω J 1/20W
R204	24011221	Res, Chip	220Ω J 1/20W
R205	24011221	Res, Chip	220Ω J 1/20W
R206	24011331	Res, Chip	330Ω J 1/20W
R207	24011102	Res, Chip	1kΩ J 1/20W
R208	24011102	Res, Chip	1kΩ J 1/20W
R209	24011102	Res, Chip	1kΩ J 1/20W
R211	24011101	Res, Chip	100Ω J 1/20W
R215	24011752	Res, Chip	7.5kΩ J 1/20W
R216	24011752	Res, Chip	7.5kΩ J 1/20W
R217	24000445	Res, Chip Jumper	0Ω
R218	24000445	Res, Chip Jumper	0Ω
R219	24011471	Res, Chip	470Ω J 1/20W
R220	24011105	Res, Chip	1MΩ J 1/20W
R221	24011104	Res, Chip	100kΩ J 1/20W
R222	24011472	Res, Chip	4.7kΩ J 1/20W
R223	24011183	Res, Chip	18kΩ J 1/20W
R224	24011101	Res, Chip	100Ω J 1/20W
R225	24011102	Res, Chip	1kΩ J 1/20W
R227	24011102	Res, Chip	1kΩ J 1/20W
R228	24011472	Res, Chip	4.7kΩ J 1/20W
R229	24011102	Res, Chip	1kΩ J 1/20W
R230	24011102	Res, Chip	1kΩ J 1/20W
R231	24011182	Res, Chip	1.8kΩ J 1/20W
R232	24011105	Res, Chip	1MΩ J 1/20W
R233	24998750	Res, Chip	75kΩ D 1/16W
R234	24998750	Res, Chip	75kΩ D 1/16W
R235	24998750	Res, Chip	75kΩ D 1/16W
R236	24011222	Res, Chip	2.2kΩ J 1/20W
R305	24011331	Res, Chip	330Ω J 1/20W
R308	24011101	Res, Chip	100Ω J 1/20W
R309	24011105	Res, Chip	1MΩ J 1/20W
R313	24000445	Res, Chip Jumper	0Ω
R314	24011474	Res, Chip	470kΩ J 1/20W
R315	24011472	Res, Chip	4.7kΩ J 1/20W
R801	24011162	Res, Chip	1.6kΩ J 1/20W
R802	24011102	Res, Chip	1kΩ J 1/20W
R803	24011101	Res, Chip	100Ω J 1/20W
R804	24011471	Res, Chip	470Ω J 1/20W
R805	24011103	Res, Chip	10kΩ J 1/20W
		- MISCELLANEOUS -	
F801	70144823	Fuse, Chip	1A
Z201	70132524	Crystal	FCX0-03, 28.5M
Z202	70132526	Crystal	FCX-03, 17.7M
Z203	70132525	Filter	BPF, 4.43M
Z204	70132523	Filter	LPF, 7M
Z801	70131229	Coil, Chip	HF50ACC3225T
Z802	70131229	Coil, Chip	HF50ACC3225T

SPECIFICATIONS

[Main Unit]

Power requirements	AC 100 – 240V 50/60Hz
Power consumption	TLP510: 200W
	TLP511: 205W
Mass	TLP510: 6.8 Kg
	TLP511: 8.2 Kg
Dimensions	TLP510: 340 x 138 x 295 (mm) (W/H/D) (Including the projecting sections)
	TLP511: 340 x 138 x 365 (mm) (W/H/D) (Including the projecting sections)
Ambient environment	Temperature: 0°C to 35°C Humidity: 30% to 70% RH
Lamp	UHP lamp 120W
Speaker	1.5W (monaural)
RGB inputs	RGB signal (D-sub 15-pin) Audio: 1V(p-p), more than 22kΩ, ø3.5mm stereo mini jack
VIDEO inputs	S-video signal : Y input: 1V(p-p), 75Ω, negative synchronization
	(Mini DIN 4-pin) C input: 0.286V(p-p) (burst signal), 75Ω
Outputs	Video: 1V(p-p), 75Ω, negative synchronization, pin jack
	Audio: 1V(p-p), more than 22kΩ, pin jacks (L, R)
CONTROL terminal	RGB signal (D-sub 15-pin)
	Audio: 1V(p-p), less than 2.2kΩ, ø3.5mm stereo mini jack
Cabinet Material	ABS resin

[Liquid Crystal Display]

Projection system	3-pannels transmission
Panel size	1.3 inches
Driving system	TFT active matrix
Picture elements	786,432 (1024 x 768 dots) x 3

[Projection Lens]

Lens	Zooming lens F=2.5 – 3.0 f=50 – 70mm
Focusing	Manual operation
Zooming	Manual operation

[Document Imaging Camera]

Lens	F=1.8 - 2.3, f=5.8 - 17.4mm
Filming area	Max 290 (mm) horizontal, 217 (mm) vertical (WIDE)
Zoom	Motor-driven (Manual)
Focus	Motor-driven (Manual)
Iris	Auto/Lever adjustment allowed
TV signal	PAL
Image element	1/3 inch CCD
Total picture elements	480,000
Resolution	Horizontal 450, vertical 420
Lighting	4W fluorescent light
Output Terminal	Pin jack PAL signal

[Accessories]

Wireless remote control	1
AA size battery	2 (TLP510A, TLP511A)
R6 size battery	2 (TLP510Z, TLP511Z)
Power cord	1 (2: TLP510Z, TLP511Z)
RGB cable	1
Adapter for Macintosh computers	1
Audio/video cable	1
Lens cover	1 (Only the document imaging camera model)
Pad	1
Infrared remote sensor unit.....	1
IBM/MAC cable (for infrared remote sensor unit)	1
MAC cable (for infrared remote sensor unit)	1

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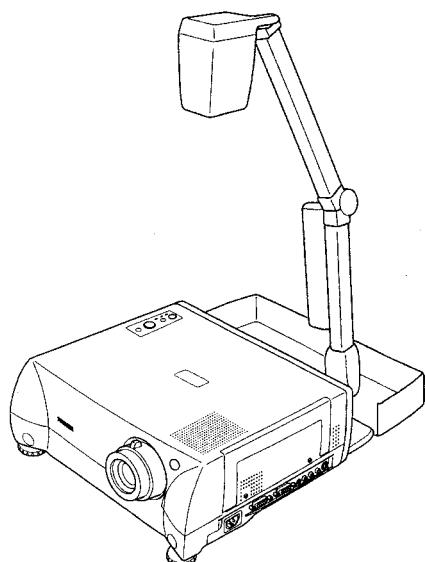
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SERVICE MANUAL



V19577

3LCD DATA PROJECTOR
TLP510U, TLP511U
TLP510E, TLP511E

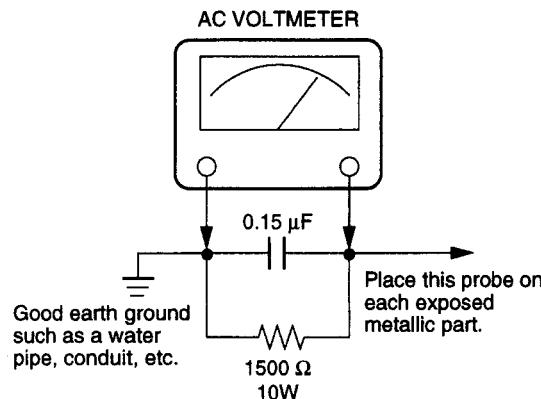


TLP511U

SAFETY PRECAUTION

WARNING: Service should not be attempted by anyone unfamiliar with the necessary precautions on this projector. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation Transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.
2. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
3. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as terminals, screwheads, metal overlays, control shafts etc. to be sure the set is safe to operate without danger of electrical shock. Plug the AC line cord directly into a 120V (TLP510U, TLP511U)/240V (TLP510E, TLP511E) AC outlet (do not use a line isolation transformer during this check). Use an AC voltmeter having 5000Ω per volt or more sensitivity in the following manner: Connect a 1500Ω 10W resistor, paralleled by a $0.15\ \mu F$, AC type capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500Ω resistor and $0.15\ \mu F$ capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed $5.25V(rms)$. This corresponds to $3.5\ mA(AC)$. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

ULTRAVIOLET DANGER IN SERVICE MODE

Eye damage may result from directly viewing the light produced by the lamp used in this product. Always turn off lamp before opening this cover. Ultraviolet radiation eye protection required during servicing.

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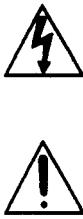
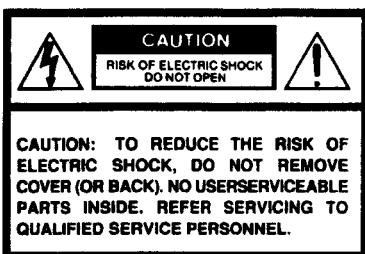
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SAFETY PRECAUTIONS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

<TLP510U, TLP511U>

WARNING

FCC Radio Frequency Interference Statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiates radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

DOC compliance notice

This digital apparatus does not exceed the Class A limit for radio noise emissions from digital apparatuses as set forth in the Radio Interference Regulations of the Canadian Department of Communications.

IMPORTANT PRECAUTIONS

Save Original Packing Materials

The original shipping carton and packing materials will come in handy if you ever have to ship your LCD projector. For maximum protection, repack the set as it was originally packed at the factory.

Avoid Volatile Liquid

Do not use volatile liquids, such as an insect spray, near the unit.
Do not leave rubber or plastic products touching the unit for a long time. They will mar the finish.

Moisture Condensation

Never operate this unit immediately after moving it from a cold location to a warm location. When the unit is exposed to such a change in temperature, moisture may condense on the crucial internal parts. To prevent the unit from possible damage, do not use the unit for at least 2 hours when there is an extreme or sudden change in temperature.

In the spaces provided below, record the Model and Serial No. located at the rear of your LCD projector.

Model No. _____ Serial No. _____

Retain this information for future reference.

IMPORTANT SAFETY INSTRUCTIONS

CAUTION: PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS GIVEN IN THIS OWNER'S MANUAL AND THOSE MARKED ON THE UNIT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

This set has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this unit will protect you if you observe the following procedures for installation, use and servicing. This unit is fully transistorized and does not contain any parts that can be repaired by the user.
DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

1. Read owner's manual

After unpacking this product, read the owner's manual carefully, and follow all the operating and other instructions.



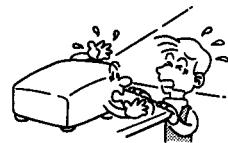
2. Power Sources

This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.



3. Source of Light

Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyes or sight.



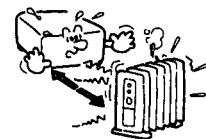
4. Ventilation

Openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.



5. Heat

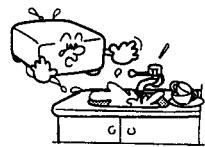
The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.



IMPORTANT SAFETY INSTRUCTIONS

6. Water and Moisture

Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool and the like.



7. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.



8. Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.



9. Overloading

Do not overload wall outlets; extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.



10. Lightning

For added protection for this product during storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.

This will prevent damage to the product due to lightning and power-line surges.



11. Object and Liquid Entry

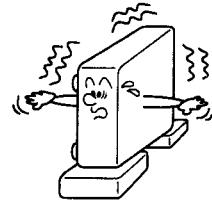
Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.



12. Do not place the product vertically

Do not use the product in the upright position to project the pictures at the ceiling, or any other vertical positions.

It may fall down and dangerous.

**13. Stack inhibited**

Do not stack other equipment on this product or do not place this product on the other equipment.

Top and bottom plates of this product develops heat and may give some undesirable damage to other unit.

**14. Attachments**

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

15. Accessories

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

**16. Damage Requiring Service**

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a) When the power-supply cord or plug is damaged.
- b) If liquid has been spilled, or objects have fallen into the product.
- c) If the product has been exposed to rain or water.
- d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e) If the product has been dropped or damaged in any way.
- f) When the product exhibits a distinct change in performance - this indicates a need for service.

17. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



18. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

(Replacement of the lamp only should be made by users.)

19. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.



20. Do not get your hands between the camera arm and the main unit when setting the camera arm back in its original position.

To avoid injury, be careful not to get your hands caught when setting the camera arm back in its original position. Families with children should be particularly careful.



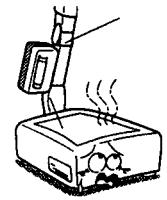
21. Do not carry by the camera arm.

Do not carry the projector by the camera arm. Doing so can result in damage or injury.



22. Do not leave documents on the unit for long periods of time while using the document imaging function.

Do not leave texts, papers or other documents for projection on the unit for long periods of time. The heat could erase the letters on a thermal paper.

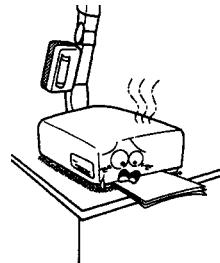


23. Before replacing the fluorescent light, turn off the power and wait at least one hour for the fluorescent light to cool down.

The fluorescent light gets hot, so handle it with care. Failure to do so may result in burns or other injuries.

24. Do not leave documents in the bottom of the projector.

Documents can block the air intake holes, making the inside of the projector heat up and causing breakdowns.



25. Do not move the projector while the arm is still erect.

Always store the arm back in position when moving the projector. Otherwise injury or damage may result.



26. Camera section is not locked. Do not hold the camera cover and camera unit when carrying out, etc.

Danger such as dropping, or cause of failure and injury may result.



SECTION 1

PART REPLACEMENT AND ADJUSTMENT PROCEDURES

1. LOCATION OF MAIN PARTS

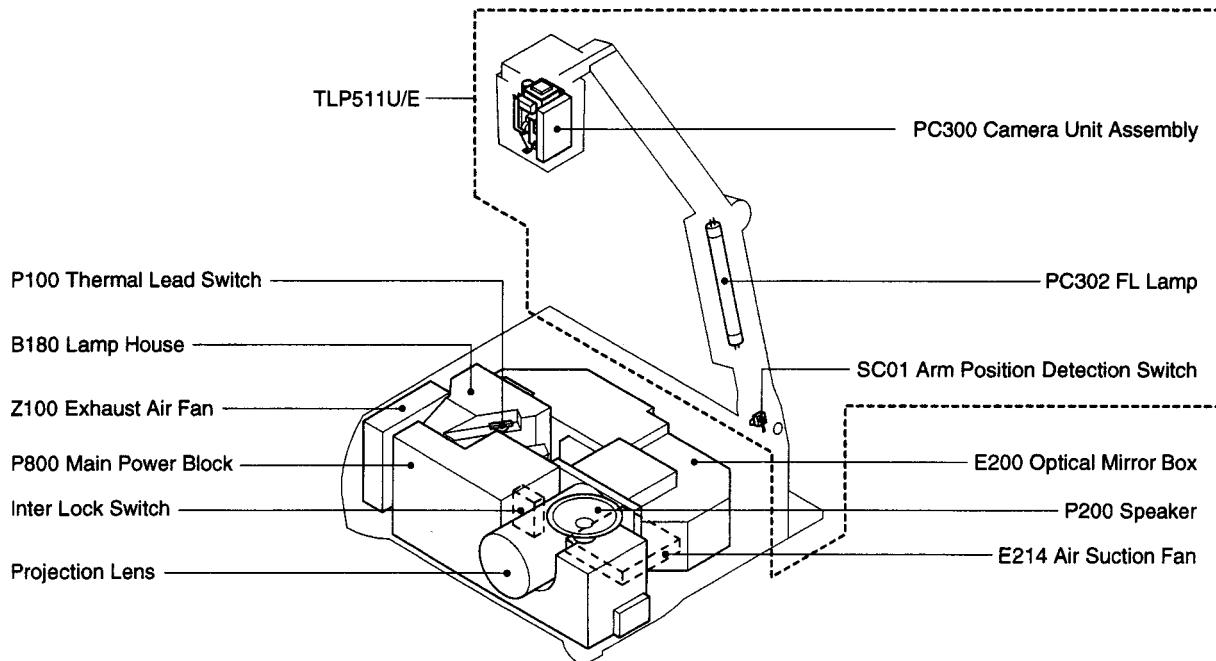


Fig. 1-0-1

2. LOCATION OF PC BOARDS

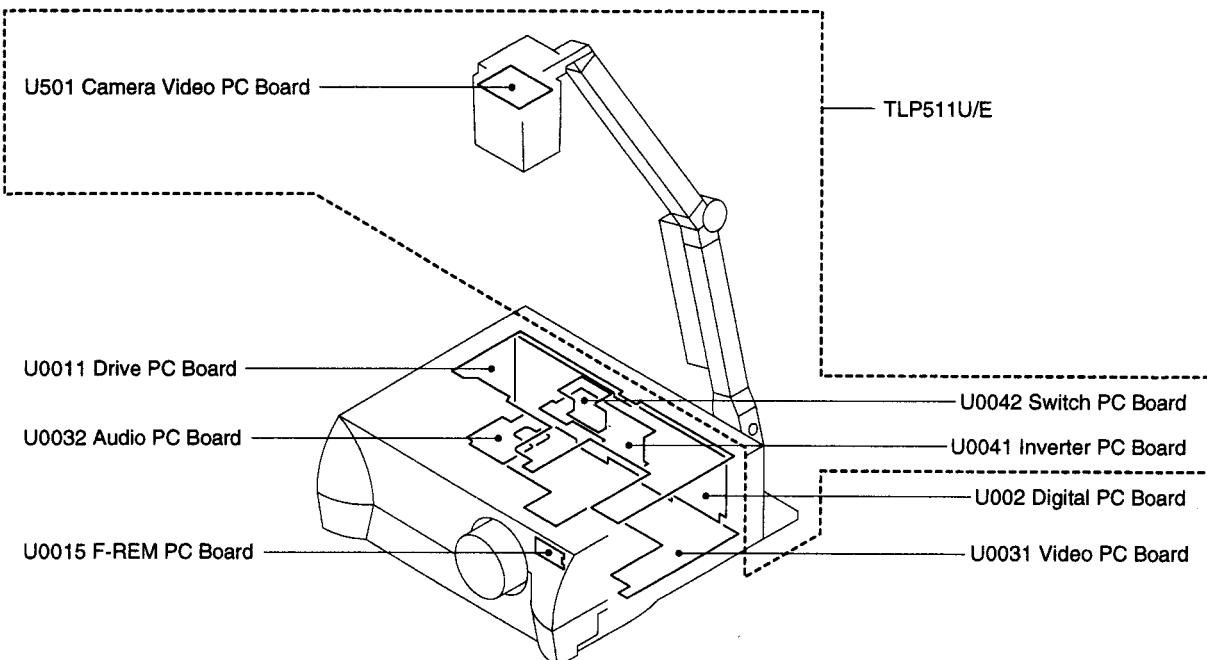


Fig. 2-0-1

CAUTIONS BEFORE STARTING SERVICING

Electronic parts are susceptible to static electricity and may easily damaged, so do not forget to take a proper grounding treatment as required.

Many screws are used inside the unit. To prevent missing, dropping, etc. of the screws, always use a magnetized screwdriver in servicing. Several kinds of screws are used and some of them need special cautions. That is, take care of the tapping screws securing molded parts and fine pitch screws used to secure metal parts. If they are used improperly, the screw holes will be easily damaged and the parts can not be fixed.

3. DISASSEMBLING

3-1. Main Unit (1)

3-1-1. Document Camera (TLP511U/E)

1. Remove 4 screws (1) and remove document camera rear plate.
2. Disconnect 1 connector (2) connected to the document camera.
3. Remove 5 screws (3) and remove the document camera.

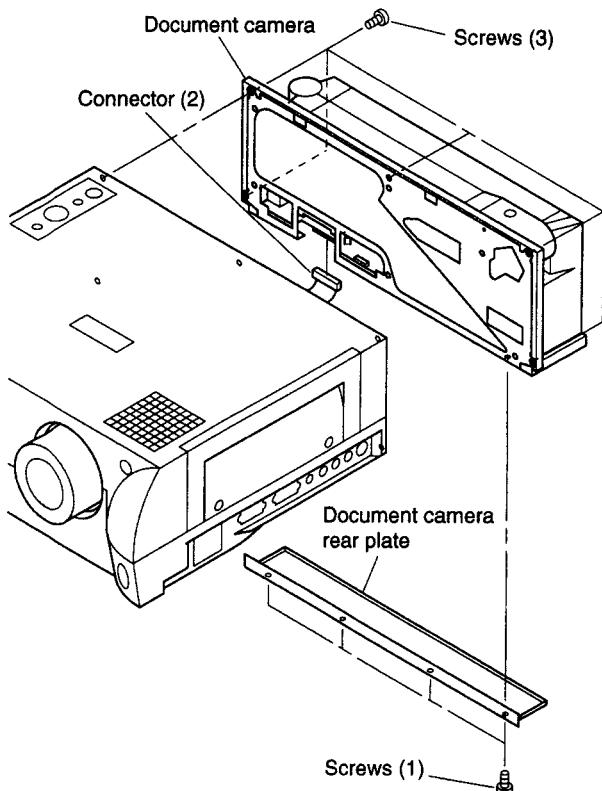


Fig. 3-1-1

3-1-2. Top Cover and Speaker

1. Remove document camera. (TLP511U/E: Refer to Fig. 3-1-1.)
2. Remove top tag and remove 1 screw (1).
3. Remove 6 screws (2) and lift up top cover while pressing section A of the top cover.
4. Remove speaker connector (3) and remove top cover.
5. Remove 2 screws (4) securing speaker holder, and remove speaker from speaker holder.

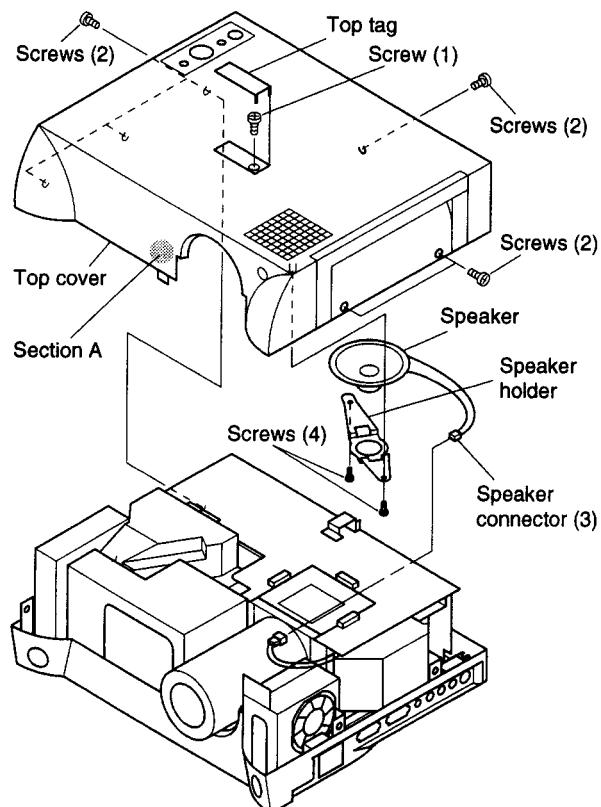


Fig. 3-1-2

3-1-3. Drive PC Board and F-REM PC Board

1. Remove 1 screw (1) and remove reinforcement metal plate.
2. Remove 6 screws (2) securing drive PC board.
3. Remove 3 flexible cables (3) from LCD panel and 2 flexible cables (4) from the rear side.
4. Disconnect 8 connectors (5) from drive PC board.
5. Confirm all the connector are disconnected and then lift up the drive PC board.
6. Remove 1 screw (6).
7. Remove 1 connector (7) and remove F-REM PC Board.

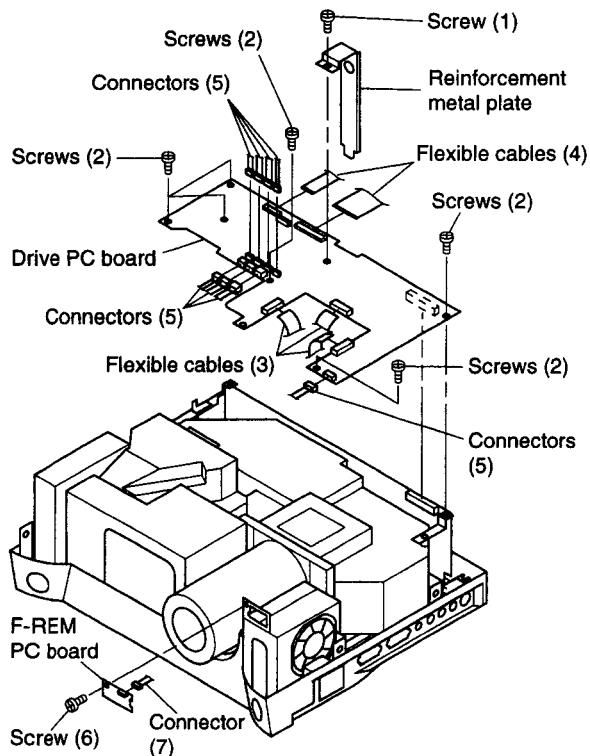


Fig. 3-1-3

3-1-4. Digital PC Board

1. Remove drive PC board. (Refer to Fig. 3-1-3.)
2. Remove 1 connector (1).
3. Lift up digital PC board.

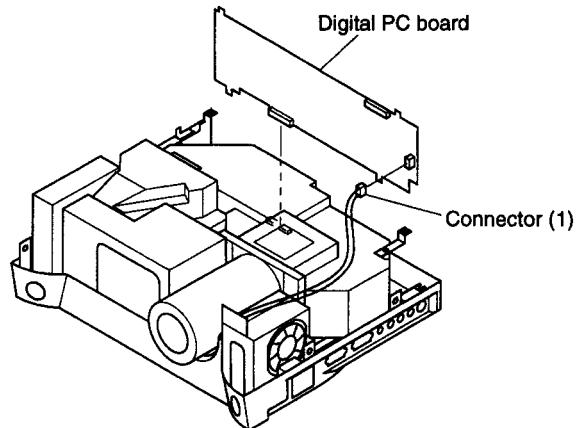


Fig. 3-1-4

3-1-5. Lamp House Assembly and Exhaust Fan

Note:

- Remove the lamp unit in advance. (Refer to Owner's Manual.)
1. Remove 2 connectors (1).
 2. Remove 2 screws (2) and disconnect socket.
 3. Remove 3 screws (3) and remove lamp house assembly.
 4. Remove 2 screws (4) and remove exhaust fan.
 5. Remove 1 screw (5) and remove exhaust fan mounting frame.

<When removing the exhaust fan >

Make sure the top cover is removed. Remove 2 screws (4) and disconnect connector of fan lead, and the fan will be removed.

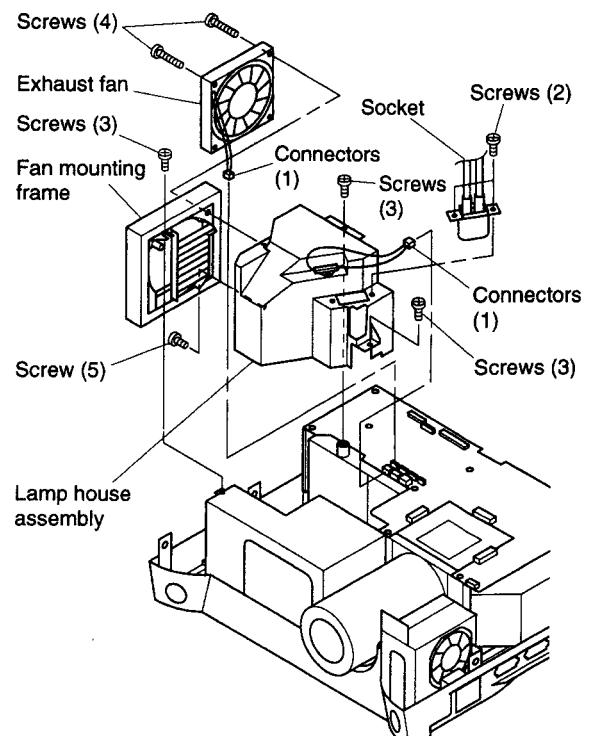


Fig. 3-1-5

3-1-6. Optical Box and Air Suction Fan

1. Remove drive PC Board. (Refer to Fig. 3-1-3.)
2. Remove lamp house assembly. (Refer to Fig. 3-1-5.)
3. Remove 2 screws (1) and remove PC board holder bracket.
4. Remove 3 screws (2) and remove metal fitting.
5. Remove 4 screws (3) and remove optical box lifting upward.
6. Remove 2 screws (4) and remove air suction fan.

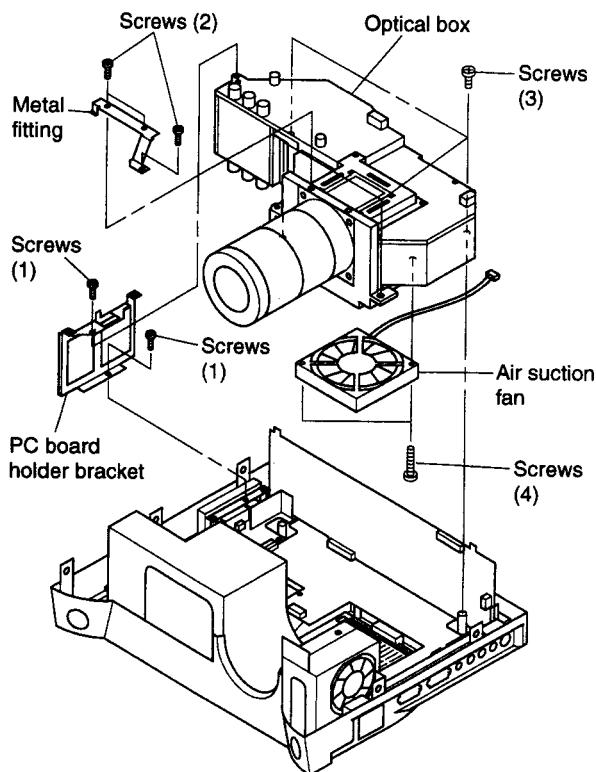


Fig. 3-1-6

3-1-7. Main Power Supply Block

1. Remove drive PC board. (Refer to Fig. 3-1-3.)
2. Remove lamp house assembly. (Refer to Fig. 3-1-5.)
3. Remove optical box. (Refer to Fig. 3-1-6.)
4. Remove 1 connector (1).
5. Remove 4 screws (2) and remove main power supply block.

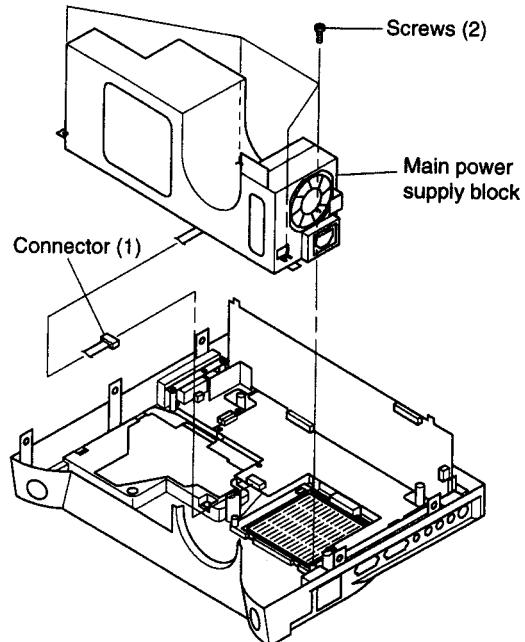


Fig. 3-1-7

3-1-8. Video PC Board and Audio PC Board

1. Remove drive PC board. (Refer to Fig. 3-1-3.)
2. Remove lamp house assembly. (Refer to Fig. 3-1-5.)
3. Remove optical box. (Refer to Fig. 3-1-6.)
4. Disconnect joint of Video PC board and audio PC board.
5. Remove 1 connector (1) of Video PC board.
6. Remove 8 screws (2) and remove Video PC board.
7. Remove 3 screws (3) and remove audio PC board.

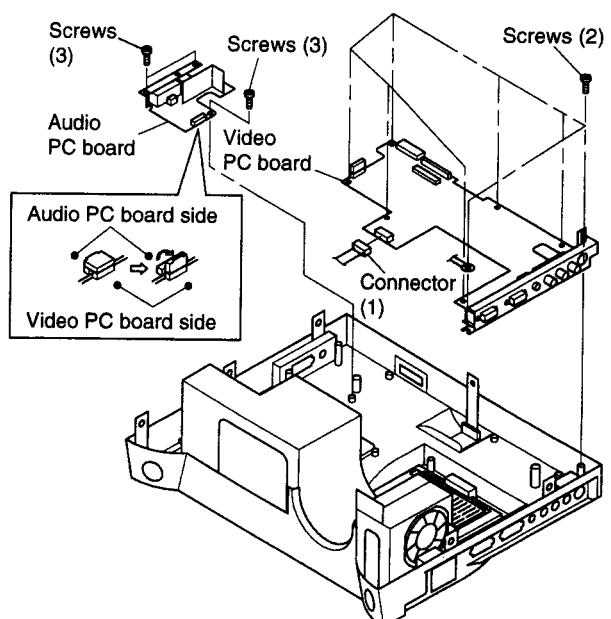


Fig. 3-1-8

3-2. Main Unit (2) – Optical Box

3-2-1. Lens

1. Remove optical box. (Refer to Fig. 3-1-6.)
2. Remove 4 screws (1) and remove lens.

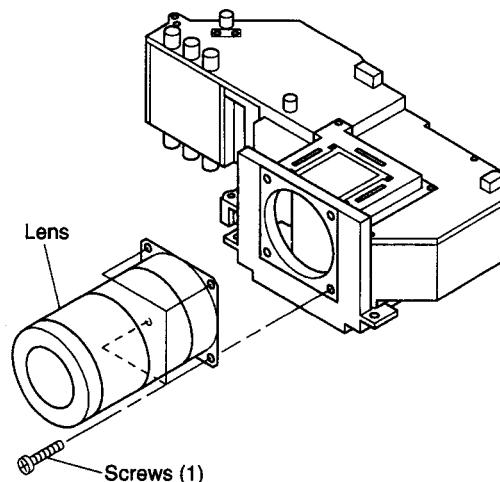


Fig. 3-2-1

3-2-2. Filter Cover and Mirror Block Cover

1. Remove optical box. (Refer to Fig. 3-1-6.)
2. Peel off tape covering openings around FPC section of each color LCD on the filter cover.
3. Remove 4 screws (1) and remove filter cover.
4. Remove 6 screws (2) and remove mirror block cover.

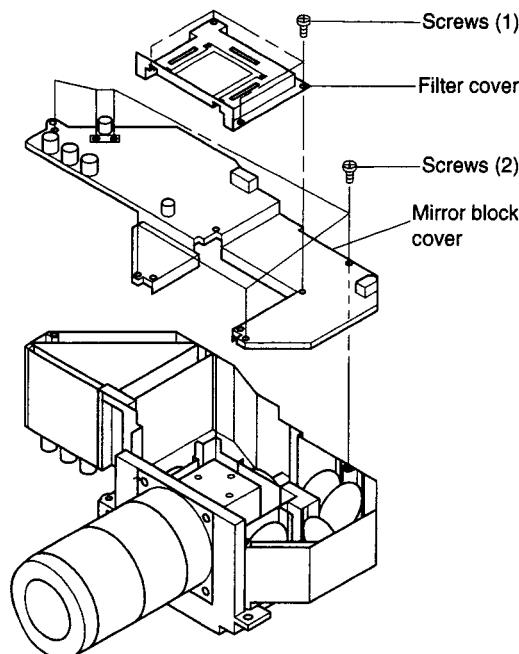


Fig. 3-2-2

3-2-3. LCD Block, LCD Plate and LCD Panel

Note:

- Do not touch the LCD panels with your bare fingers.
Wear white cotton gloves when working with the panels.
1. Remove all cables connected to connectors on PC board and LCD panel and drive PC board.
 2. Peel off tape covering openings around FPC section of each LCD on filter cover.
 3. Remove 4 screws (1) and remove filter cover.
 4. Remove 3 screws (2) (always use a screw driver with a strong magnet) and remove LCD plate with LCD to be replaced from LCD block. When replacing three LCDs at the same time, first remove green LCD plate from the LCD block.
 5. Remove 3 screws (3) and remove LCD panel from LCD plate.

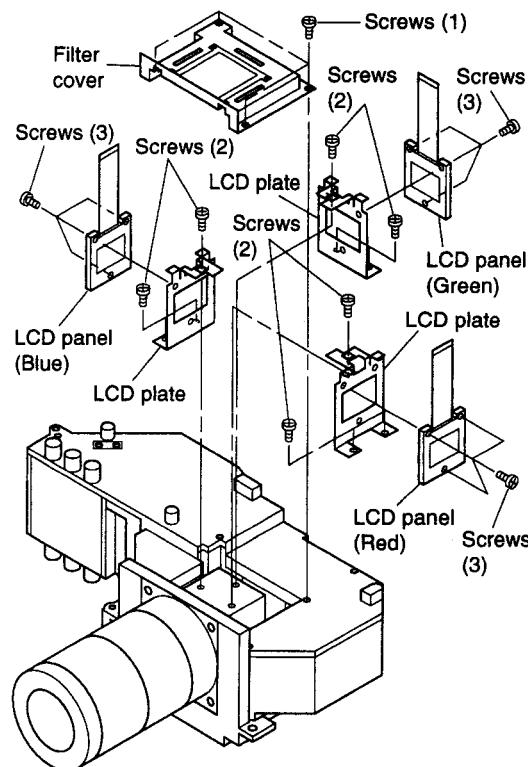


Fig. 3-2-3

< How to mount a new LCD >

- When mounting a red LCD, mount it on the red LCD plate (No.23796019) or when mounting a blue LCD, mount it on the blue LCD plate (No.23796018) so that the FPC section faces upward and main unit side faces downward.
- When mounting a green LCD, mount it on the LCD plate used so far. In this case, prepare the green LCD mounting jig (No.23796021), and position the LCD plate so that its two holes (1) matches two protruded parts on the jig. Then place the green LCD on it in the same direction as the red and blue LCDs by tightening screws (3 holes (2) on the LCD plate).

Note:

- Be always sure to attach the black shielding sheet on the LCD.

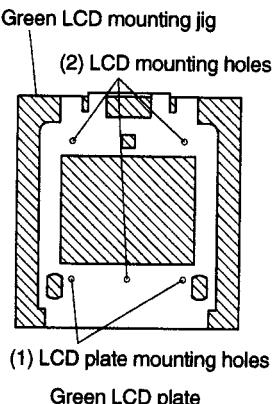


Fig. 3-2-4

- Mount the LCD plate with a new LCD mounted at the bottom side of the LCD block (can be mounted only in one direction) and tighten the screws. Do not tighten the screws completely. Tighten the screws temporarily so that the LCD can move for later pixel matching adjustment of the LCDs.

Note:

- Do not mount the filter cover to allow the LCD adjustment.

< Adjustment of LCD >

If the red and blue LCD panels need to be adjusted, follow the procedures in the item "Red/Blue LCD adjustment". However, if the green LCD panel needs to be adjusted, follow the procedures in the item "Green LCD adjustment". After the green LCD panel adjustment is carried out, it is necessary to replace or adjust the red and blue LCD panels as described in the item "Red/Blue LCD adjustment".

< Service jig >

- Focus adjust jig : 23974761



Fig. 3-2-5

< Drive PC board remounting >

Remount the drive PC board under the filter cover not installed. Connect cables removed from connectors on the drive PC board and the LCD panel as they were connected. (If a signal generator which can not generate a white raster signal is not available, do not connect the LCD panel.)

< Setup >

- Make a wall chart on white fiber board as illustrated in Fig. 3-2-6.

Note:

- Only use a stiff material to prevent focus errors.

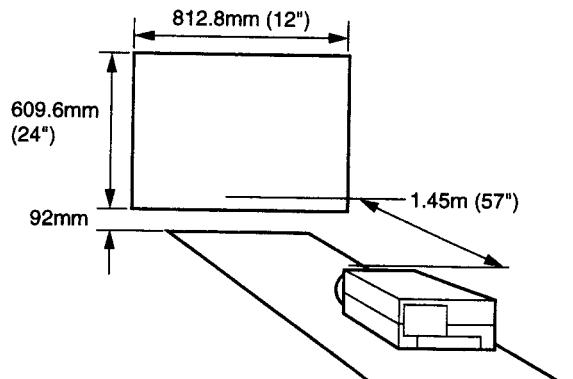


Fig. 3-2-6

- Retract the foot adjusters so the unit sits flat.
- Place the LCD Projector on a table so that the front edge of the lens is 1.45m from the wall. (Refer to Fig. 3-2-6)
- Set the zoom ring to the maximum wide setting.
- Adjust the focus ring to the center of its range.

6. Feed a white raster signal through RGB connectors and turn on the power of the projector. (If a signal generator which provides a white raster signal is not available, turn on the power without connecting the LCD panel.)
7. If all three LCD panels need to be replaced, refer to the "Green LCD adjustment".
8. Adjust the focus ring and the raster focus of the LCD which has not been replaced. If the green LCD is not replaced, adjust the green raster. If the green LCD is replaced, adjust the red raster, and if the red LCD is replaced, adjust the blue raster.
9. Attach the wall chart to the wall so the bottom line of the square lines up with the bottom of the raster. Also, center the chart horizontally with the raster.
10. Adjust the zoom ring and make sure the bottom of the raster remains on the bottom line. Return the zoom ring to the maximum wide setting.
11. Hereafter, do not move the setting position and the focus ring.

< Red/Blue LCD adjustment >

1. Confirm connection of the LCD panel (if not connected, connect the LCD to the connector of the PC board.)
2. Turn the projector on.
3. Input the cross hatch pattern from RGB connectors. Only input R signal when adjusting the red panel focus, and only input B signal when adjusting the blue panel focus.
4. Prepare two focus adjustment jigs. Insert them onto two holes on bottom of the LCD plate, and adjust the LCD plate back and forth until the best focus is obtained in considering left and right balance of the projection screen.

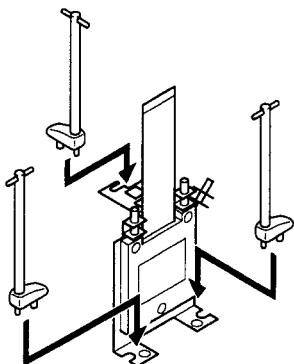


Fig. 3-2-7

5. If the focus or raster geometry is changed, when tightening the screws holding the LCD mount, loosen the screws slightly and readjust.
6. Prepare one focus adjustment jig and insert it onto the one hole on top of the LCD plate, and adjust the LCD plate back and forth until the best focus is obtained in considering upper and lower balance of the projection screen. (Refer to Fig. 3-2-7.)
7. If the focus or raster geometry is changed, when tightening the screws holding the LCD mount, loosen the screws slightly and readjust.
8. Input the cross hatch pattern of G signal.
9. Adjust the cross hatch pattern up & down (Refer to Fig. 3-2-8) and left & right (Refer to Fig. 3-2-9) with the three adjusting screws (hex screw driver (1.0 mm) available on the market) until it is aligned with the green cross hatch pattern.

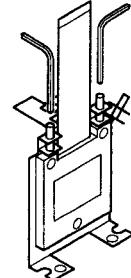


Fig. 3-2-8

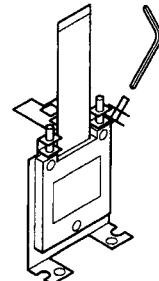


Fig. 3-2-9

10. Turn off the power, and remove the FPC section of the LCD from the connector of the drive PC board.

11. Fill a quick dry adhesive at joint of the LCD mount. In this case, sufficient care will be necessary so that the adhesive does not stick to the LCD panel surface or any other parts.

Note:

- Use the adhesive available on the market as an epoxy type two liquid mixture of equal amount.

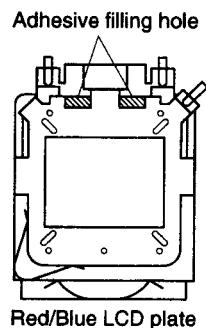


Fig. 3-2-10

12. Leave the LCD block until the adhesive is hardened for a required time. In this case, place a thin paper on the LCD block to prevent dusts from entering.

13. When the adhesive is hardened, connect the FPC of the LCD to the connector of the PC board, and turn on the power. Check to see pixel deviation of the LCD.

14. Check to see dusts of the LCD. If dusts are found, remove them.

15. Turn the power off. Remove all the cables connected to the PC board and LCD panel, and remove the drive PC board.

16. Mount the filter cover removed again. Tighten 4 screws, and close openings around the FPC section with tape.

17. Mount the drive PC board again. Connect cables disconnected from the drive PC board and the LCD panel as they were connected.

18. Turn on the power and check operations.

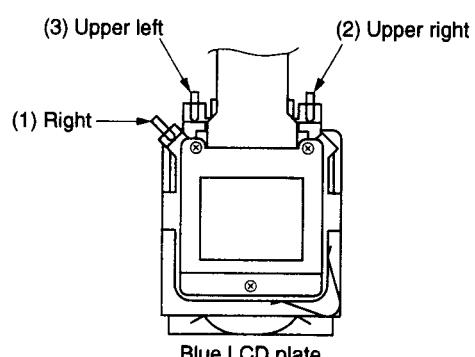
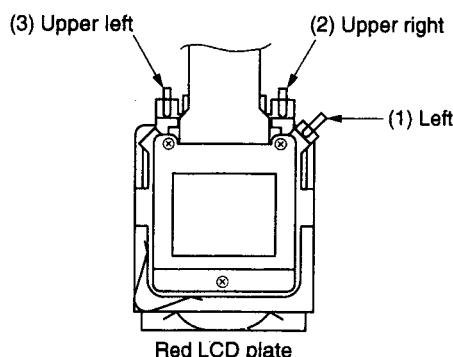


Fig. 3-2-11

Movement of a cross hatch pattern with respect to a screen depending on an adjustment screw (fundamental action).

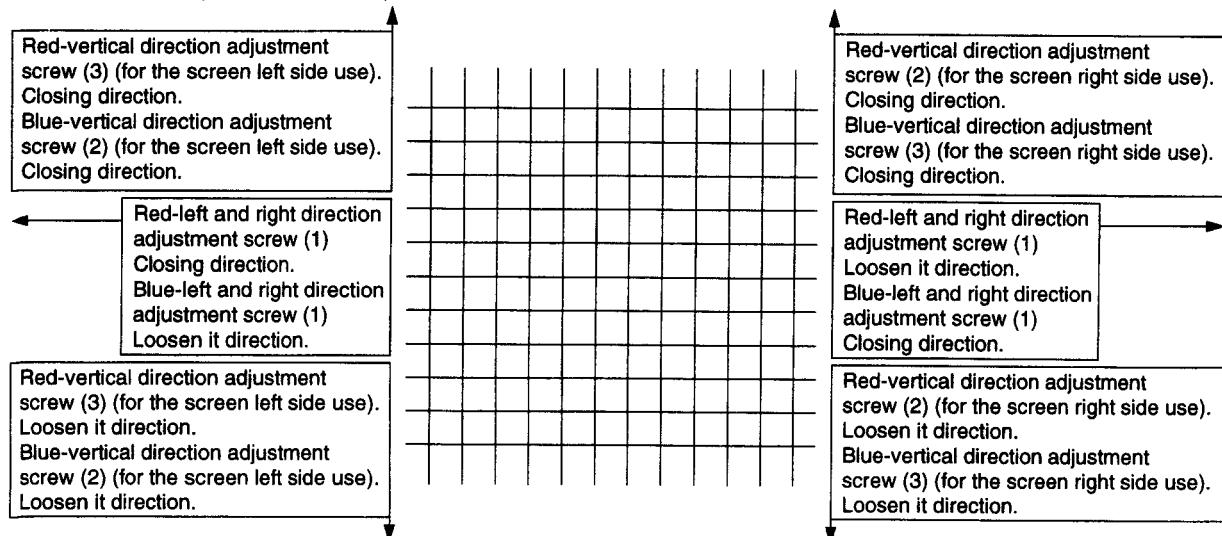


Fig. 3-2-12

< Green LCD adjustment >

1. Confirm connection of the LCD panel (if not connected, connect the LCD to the connector of the PC board.)
2. Turn the projector on.
3. Input the cross hatch pattern from the RGB connectors. Adjust the green color only.
4. Prepare two focus adjustment jigs. Insert them onto two holes on bottom of the LCD plate, and adjust the LCD plate back and forth until the best focus is obtained in considering left and right balance of the projection screen. (Refer to Fig.3-2-7.)
5. If the focus or raster geometry is changed, when tightening the screws holding the LCD mount, loosen the screws slightly and readjust.
6. Prepare one focus adjustment jig and insert it onto the upper hole of the LCD plate, and adjust the LCD plate back and forth until the best focus is obtained in considering upper and lower balance of the projection screen. (Refer to Fig.3-2-7.)

7. If the focus or raster geometry is changed, when tightening the screws holding the LCD mount, loosen the screws slightly and readjust.
8. When the green LCD is replaced, the pixel matching adjustments for the red and blue panels will be necessary in many cases. (If the pixel matching is obtained in above adjustment, it is not necessary.) Accordingly, turn off the power. Remove the FPC section of the red and blue LCDs from the PC board connectors, and remove the red and blue LCD plate from the LCD block.
9. Remove the red and blue LCD from the LCD plate and mount them on new LCD plates.
10. Mount the new red and blue LCD plates on the LCD block.
11. Perform the adjustment steps (1) – (9) described under “Red/Blue LCD Adjustment” for each red and blue LCD.
12. After completion of the red and blue LCD adjustments, perform the steps (10) – (18) described under “Red/Blue LCD Adjustment”.

3-3. Document Camera Section (TLP511U/E)

3-3-1. Camera Section Cover

1. Remove 5 screws (1) and remove camera section cover.

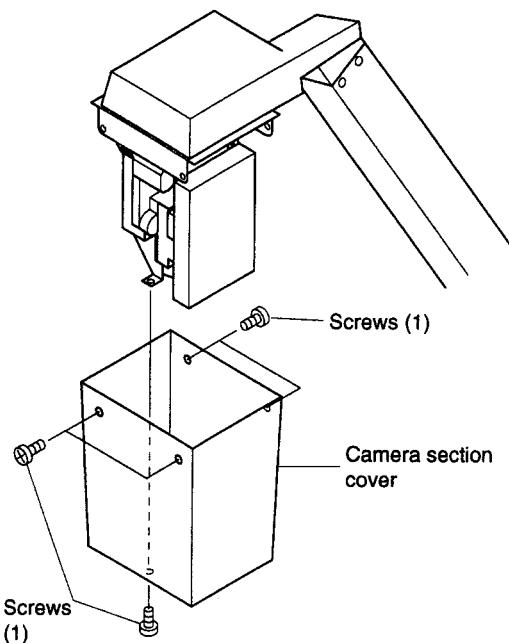


Fig. 3-3-1

6. Remove rubber packing (7) and filter (8) from camera assembly.

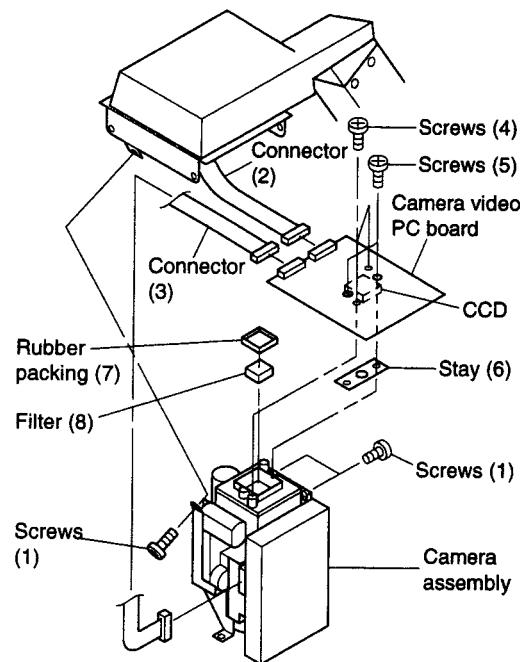


Fig. 3-3-2

3-3-2. Camera Video PC Board and Camera Assembly

1. Remove camera section cover. (Refer to Fig. 3-3-1.)
2. Remove 3 screws (1). (Refer to Fig. 3-3-2.)
3. Remove 1 connector (2) and remove camera assembly.
4. Remove 1 connector (3).
5. Remove 2 screws (4) and 2 screws (5), and camera assembly can be removed from camera video PC board.

Note:

- When 2 screws (4) are removed, stay (6) positioned under CCD can also be removed, so care will be necessary. (Refer to Fig. 3-3-3.)

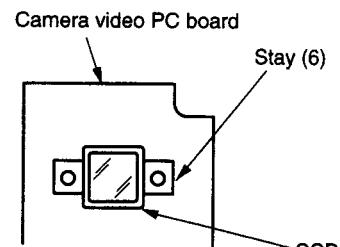


Fig. 3-3-3

3-3-3. FL lamp

1. Remove FL lamp cover and FL lamp unit.
2. Remove 2 screws (1) and FL lamp.
3. Remove 4 screws (2) and remove lower FL lamp cover.

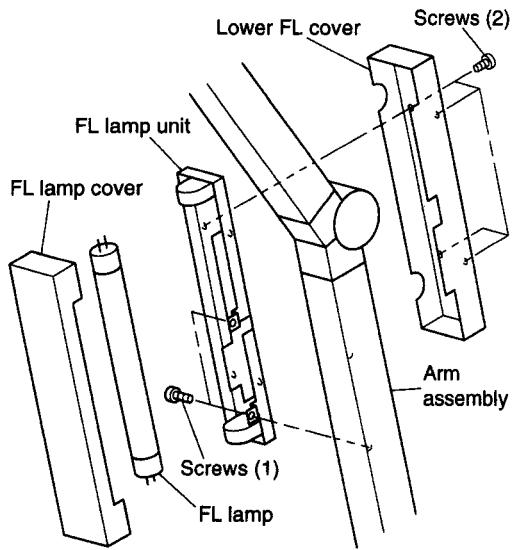


Fig. 3-3-4

3-3-4. Arm Assembly

1. Remove document camera. (Refer to Fig. 3-1-1.)
2. Remove 2 connectors (1).
3. Remove 2 screws (2) securing inverter PC board.
4. Remove 6 screws (3) securing base cover and 3 screws (4) securing arm assembly, remove base plate, and arm assembly.

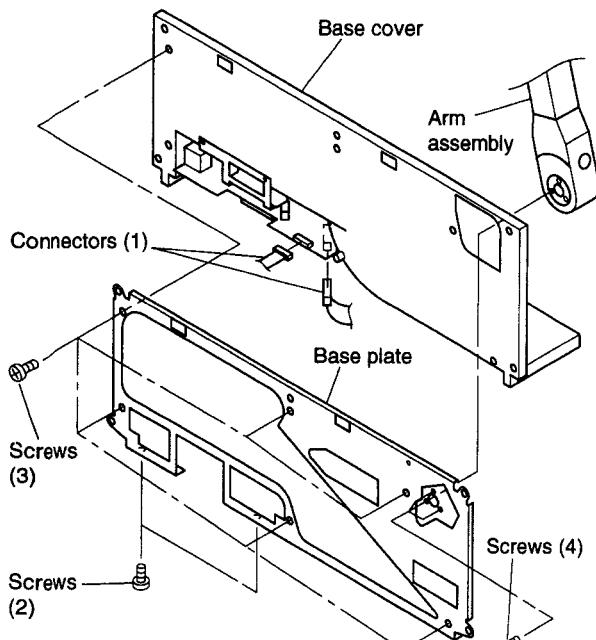


Fig. 3-3-5

3-3-5. Switch PC Board and Inverter PC Board

1. Remove document camera. (Refer to Fig. 3-1-1.)
2. Remove arm assembly. (Refer to Fig. 3-3-5.)
3. Remove 1 screw (1) and pull out inverter PC board from base cover. Remove 1 connector (2) and remove inverter PC board.
4. Remove 3 screws (3) and remove switch PC board.

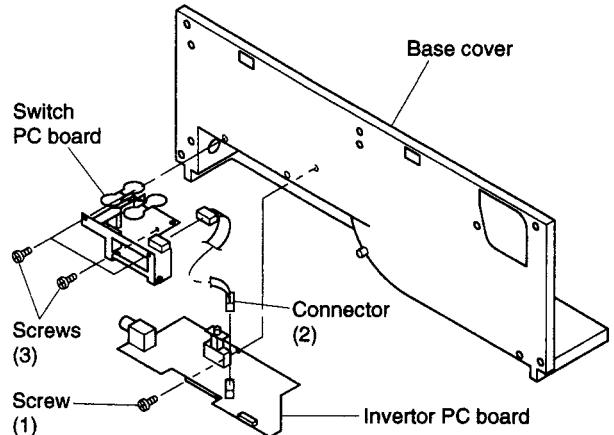


Fig. 3-3-6

3-3-6. Arm Position Detection Switch

1. Remove document camera. (Refer to Fig. 3-1-1.)
2. Remove arm assembly. (Refer to Fig. 3-3-5.)
3. Remove 3 screws (1) and remove arm cover.
4. Remove 2 screws (2) and 2 screws (3), and remove metal bracket (4).
5. Remove 2 screws (5) and remove arm release lever assembly.
6. Remove 1 screw (6) and remove arm position detection switch.

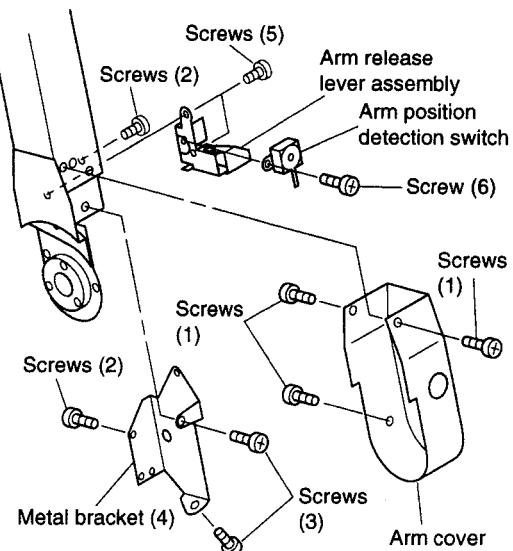


Fig. 3-3-7

4. ELECTRICAL ADJUSTMENT

<Test Equipments and Test Jigs >

- Oscilloscope
- Digital voltmeter
- Adjustment software TLP511.EXE

<Input Signal List (for use of ROM:TLP511.EXE) >

- RGB signals (pedestal level)
- RGB signals (gray scale)
- RGB signals (50% APL)
- Video signal (gray scale)
- Common voltage adjustment signal (XGA)

<Connection and Setting of Personal Computer >

(1) Connection of personal computer

- 1) Connect a computer as shown in Fig. 4-0-1, and then perform the adjustment using the adjustment software TLP511.EXE. (When using a drive C, type C:\TLP511.EXE and press enter key.)

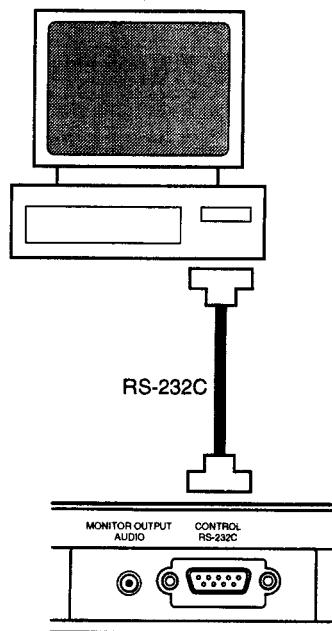


Fig. 4-0-1

(2) Default status setting

- 1) Connect computer and boot adjustment software.
- 2) Set contrast & brightness at the default.
(Refer to owner's manual)

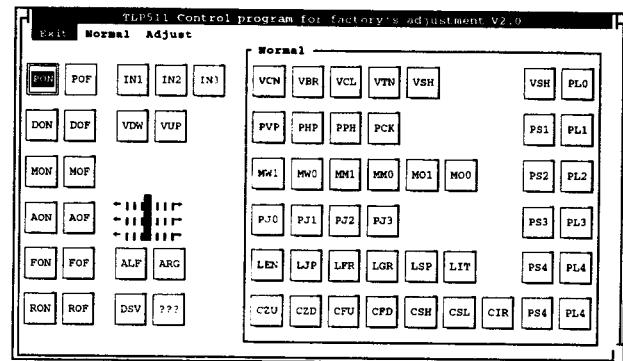


Fig. 4-0-2 Display of computer monitor
(Normal menu)

(3) Adjustment method

- 1) Adjustment is carried out by using Adjust menu on the computer monitor.

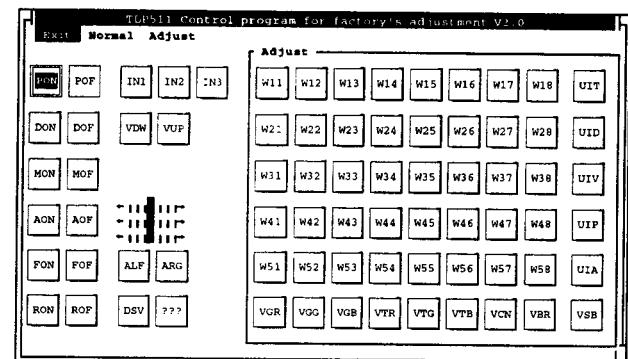


Fig. 4-0-3 Display of computer monitor (Adjust menu)

- 2) stands for an Adjust menu key.

After clicked shown in adjustment items, click **ALF**, **ARG** alternately to adjust to a specified value.

- 3) Before proceeding to each adjustment click in **IN1** Adjust menu to set RGB input. When making "1-3. Video signal input adjustment" click **IN2** to set video input.

< Adjustment Locations and Adjustment Items >

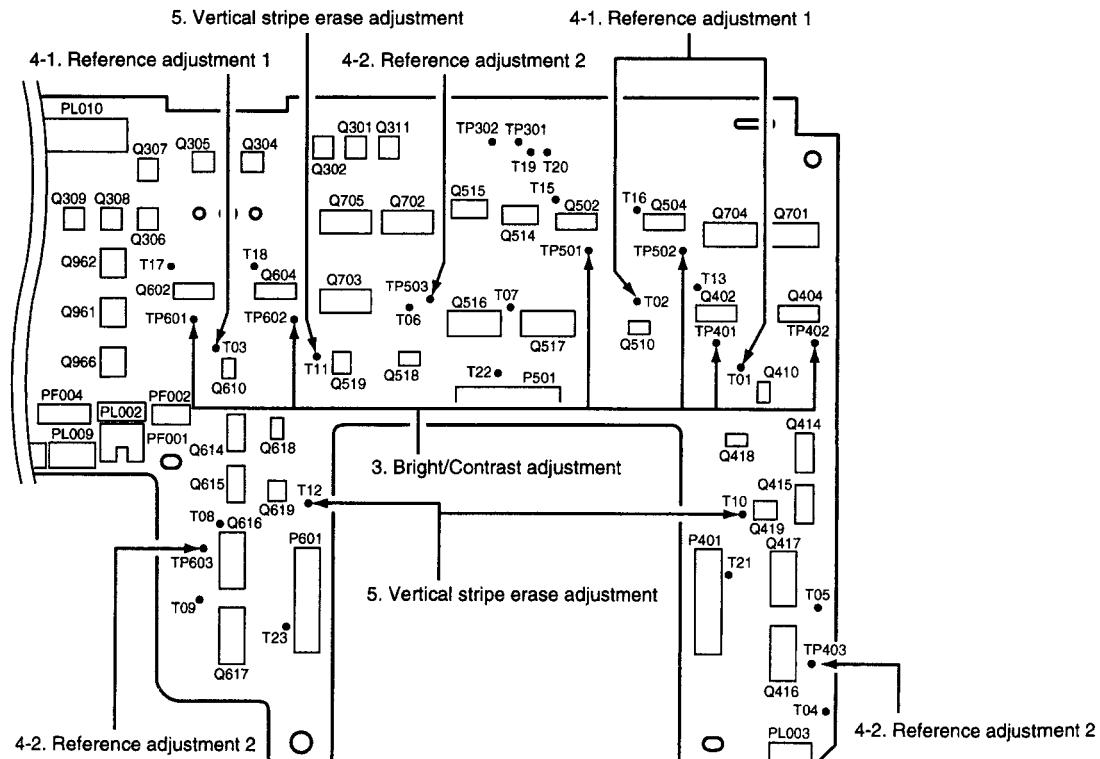
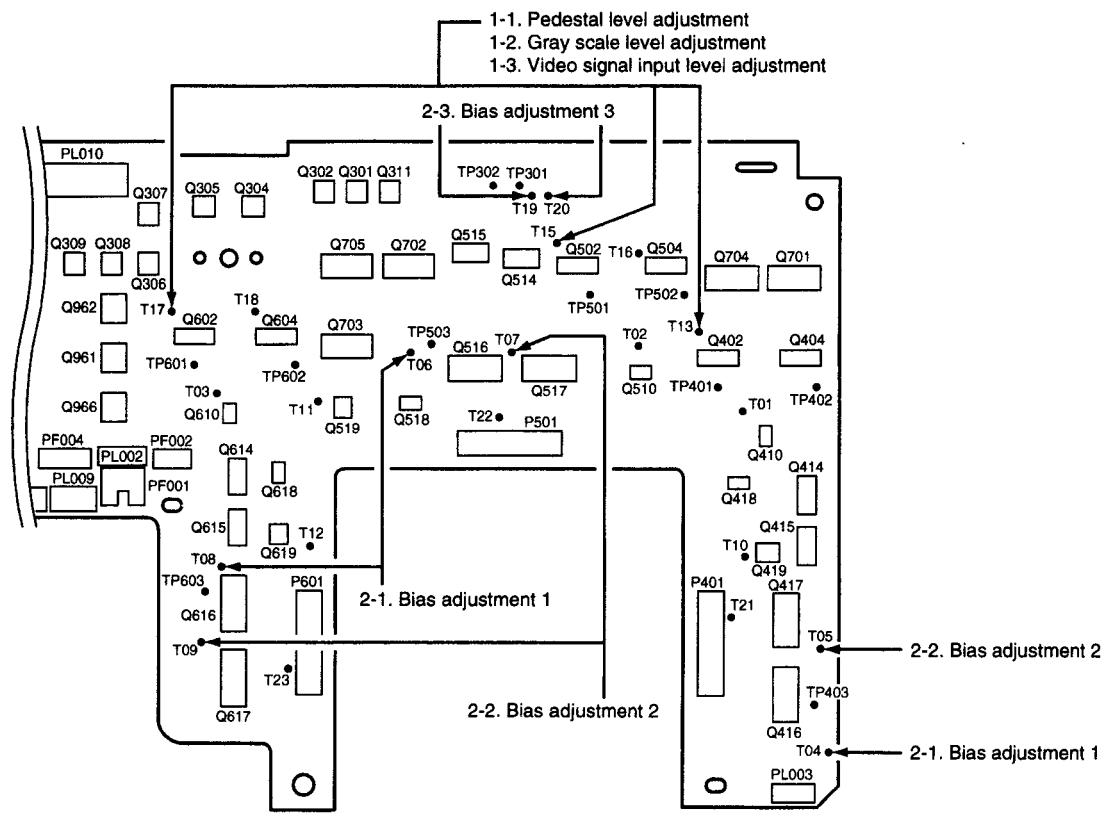


Fig. 4-0-4 Drive PC board (Top side)

Table 4-1-1

Adjust Items	Input Signal	Test Equipment	Test Point	Adjust Key	Adjust Value	Note
1. Input level adjustment						
1-1. Pedestal level adjustment	RGB signals (pedestal level)	Oscillo-scope	T13 (R) T15 (G) T17 (B)	VSB VSP VSB	• See the illustration right.	<ul style="list-style-type: none"> • Select VSB and adjust until signal shows flat.
1-2. Gray scale level adjustment	RGB signals (gray scale)	Oscillo-scope	T13 (R) T15 (G) T17 (B)	VGR VGG VGB	A = 1.75V ± 50 mV A = 1.75V ± 50 mV A = 1.75V ± 50 mV	
1-3. Video signal input level adjustment	Video signal (gray scale)	Oscillo-scope	T13 (R) T15 (G) T17 (B)	VGR VGG VGB	A = 1.75V ± 50 mV A = 1.6V ± 50 mV A = 1.75V ± 50 mV	<ul style="list-style-type: none"> • Click [IN2] to set video input mode.
2. Bias adjustment						
2-1. Bias adjustment 1	RGB signals (gray scale)	Digital voltmeter	T04 (R) T06 (G) T08 (B)	W16 W26 W36	6V ± 20 mV 6V ± 20 mV 6V ± 20 mV	
2-2. Bias adjustment 2	RGB signals (gray scale)	Digital voltmeter	T05 (R) T07 (G) T09 (B)	W15 W25 W35	6V ± 20 mV 6V ± 20 mV 6V ± 20 mV	<ul style="list-style-type: none"> • Adjustment value for bias adjustment 1: ± 10 mV
2-3. Bias adjustment 3	RGB signals (gray scale)	Digital voltmeter	T20 (G) T19 (G)	W52 W53	6V ± 20 mV 6V ± 20 mV	<ul style="list-style-type: none"> • Click [PJ0] on Normal menu to set forward scan mode and then start the adjustment. Next click [PJ1] to set reverse scan mode and perform adjustment. • Adjustment value for bias adjustment 1: ± 10 mV
3. Bright/Contrast adjustment	RGB signals (gray scale)	Oscillo-scope	TP401 (R) TP401 (R) TP402 (R) TP402 (R) TP501 (G) TP501 (G) TP502 (G) TP502 (G) TP601 (B) TP601 (B) TP602 (B) TP602 (B)	W13 (bright) W11 (contrast) W14 (bright) W12 (contrast) W23 (bright) W21 (contrast) W24 (bright) W22 (contrast) W33 (bright) W31 (contrast) W34 (contrast) W32 (bright)	A = 2V ± 50 mV B = 3V ± 50 mV TP401 adjustment value ± 30 mV TP401 adjustment value ± 30 mV A = 2V ± 50 mV B = 2.9V ± 50 mV TP501 adjustment value ± 30 mV TP501 adjustment value ± 30 mV A = 2V ± 50 mV B = 2.9V ± 50 mV TP601 adjustment value ± 30 mV TP601 adjustment value ± 30 mV	

Adjust Items	Input Signal	Test Equipment	Test Point	Adjust Key	Adjust Value	Note
4. Reference adjustment						
4-1. Reference adjustment 1	RGB signals (gray scale)	Digital voltmeter	T01 (R) T02 (G) T03 (B)	W18 W28 W38	6V (coarse adjustment) 6V (coarse adjustment) 6V (coarse adjustment)	
4-2. Reference adjustment 2	RGB signals (gray scale)	Oscilloscope	TP403 (R) TP403 (R) TP503 (G) TP503 (G) TP603 (B) TP603 (B)	W17 W18 W27 W28 W37 W38	A B A B A B	<ul style="list-style-type: none"> • Adjust for A = B as shown in illustration belows. (tolerance ± 20 mV)
5. Vertical stripe erase adjustment	RGB signals (gray scale)	Oscilloscope	T10 (R) T10 (R) T11 (G) T11 (G) T12 (B) T12 (B)	W46 W44 W45 W46 W51 W47	A = 6.5V ± 50 mV B = 1.5V ± 50 mV A = 5.5V ± 50 mV B = 1.5V ± 50 mV A = 6.5V ± 50 mV B = 1.5V ± 50 mV	
6. Bias adjustment	RGB signals (50% APL)	—	—	W52	Less apparent for vertical stripe	<ul style="list-style-type: none"> • Click P30 on Normal menu and set forward scan mode on, and then make adjustment.
7. Common voltage adjustment	Common voltage adjustment signal (XGA)	—	—	W41 W42 W43	Minimum flicker	<ul style="list-style-type: none"> • In ceiling installation: Set V reverse mode on (refer to owner's manual) and then make adjustment in the sameway.

4-1. Camera Section Adjustment (TLP511U/E)

< Before Adjustment >

In the most cases, this adjustment will be made after replacement of electrical parts. If a failure occurs in the electrical circuit, always locate the failure by using required instruments, and perform the repairing, replacement and the adjustment. Do not tamper the adjustment volumes without locating the failure. Some failure may not need readjustment, so only perform the adjustments required in practical servicing.

< Equipment Required >

1. Personal computer
IBM PC/AT or equivalent (with Windows 95 supported)
2. Color video monitor
3. Illumination
Halogen lamp (500W x 2)
4. Toshiba camera adjustment chart
Color bar chart (PN70909322)
5. Waveform monitor
6. Vector scope
7. Adjustment screwdriver
8. Color temperature conversion filter (C14)
9. Adjustment cable (PN70909447)
10. RS-232C cable (straight type)
11. Adjustment software

Note:

- If illumination unevenness exists on the adjustment chart, correct adjustment can not be made. So arrange the illumination equipments to obtain the flat illumination.
- Always use the adjustment chart free from dirty.
- The unit employs PAL system. So use the above equipments for PAL system.

< Initial Setting >

1. The adjustments for the camera section are carried out with the camera section removed from the unit.

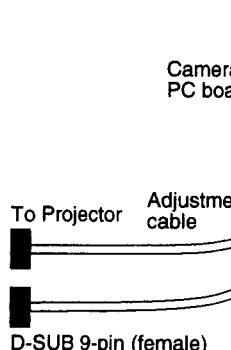


Fig. 4-1-1

2. Set the chart facing to the camera and adjust the light position to obtain the even light of the illumination.

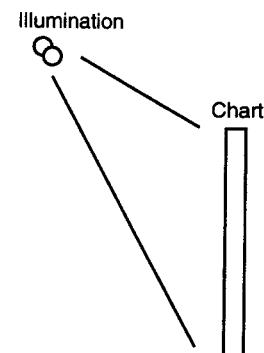


Fig. 4-1-2

3. Connect the connector (PM002) on the projector and P101 with the adjustment cable, and connect the camera output jack to the video monitor.
4. Connect the D-SUB9 pin connector of adjustment cable and COM1 port of the personal computer with a RS-232C cable.

Note:

- After completion of the setting above, turn on the powers of all the equipments and leave them for 5 minutes for warming up.

< Cable Connection Diagram for Adjustment >

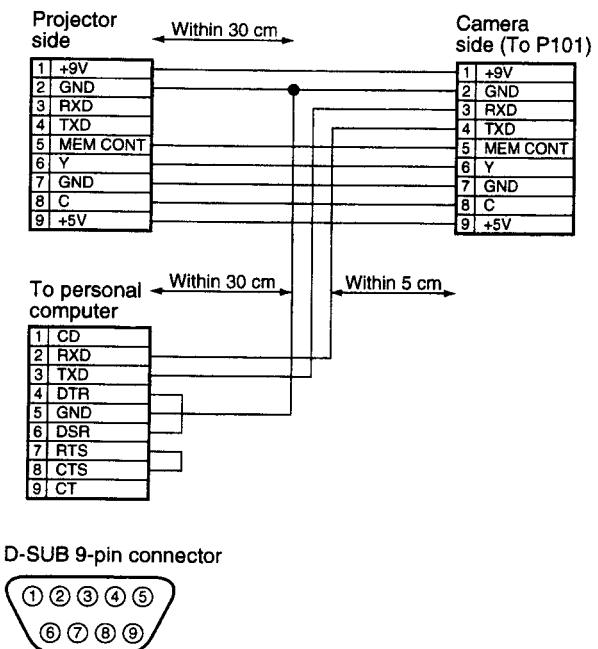


Fig. 4-1-3

< Service Adjustment Software Boot Up >

1. Start the personal computer.
2. Check the camera power is on.
3. Boot up the adjustment software (K48ADJ).
4. Check a screen menu obtained on the computer monitor.
5. Each adjustment is carried out using the adjustment software.

The words with rectangle in the sentence show the buttons on the display of a personal computer.

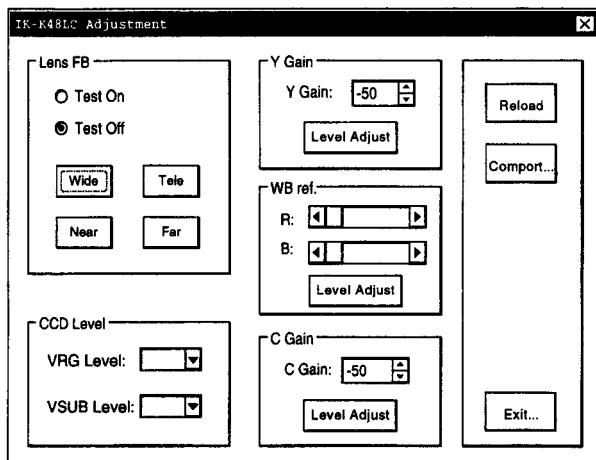


Fig. 4-1-4

Note:

If an error message will appear, check following items.

- Camera power is on.
- Camera and personal computer (COM1 port) is connected.

< Flow Chart >

The procedures are given in order to perform entire adjustments. Accordingly, some items may not be required depending on a type of failure or adjustment. In such a case, perform only the required items. However, always perform the initial setting.

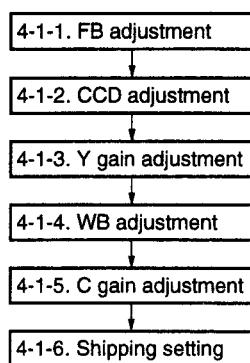


Fig. 4-1-5

< Adjustment Locations and Adjustment Items >

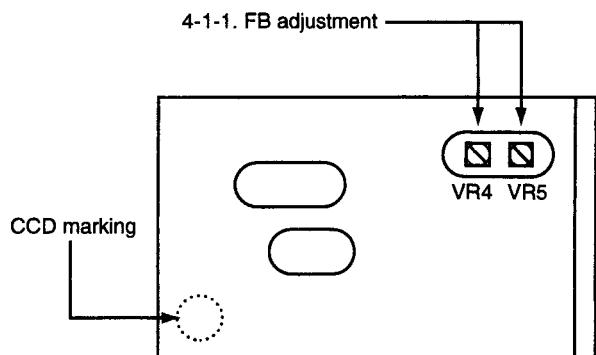


Fig. 4-1-6 Lens section PC Board (Top side)

4-1-1. FB Adjustment

Note:

This adjustment should be made only when the lens is replaced or removed from the camera PC board.

- Test point : Video output
 - Test equipment : TV monitor, waveform monitor
 - Adjusting point : VR4, VR5 (Lens section PC board)
 - Adjusting value : Refer to below
1. Click [Test On] button. In this case, check the lens is set to the Tele side fully.
 2. Shoot an object in distance of more than 10m and adjust the focus with VR5 on the lens section PCB.
 3. Click [Test Off] button, shoot the object in distance of more than 10m, press [Wide] button until the lens reaches the wide end, and adjust the focus with VR4.
 4. Shoot the color bar chart in distance of 30 ± 1 cm, move the lens to the Tele end with the [Tele] button, and adjust the focus with the [Near] button/ [Far] button.
 5. Keep to press [Wide] button to set the lens to the Wide end and check the focus is not deviated. If the focus is deviated, perform the adjustment from step 2 again.

4-1-2. CCD Adjustment

Note:

This adjustment should be made only when the CCD is replaced. Before replacing the CCD, fill in the CCD back side marking on the specified location of the Lens PCB.

- Test point : —
 - Test equipment : —
 - Adjusting point : —
 - Adjusting value : Refer to below.
1. Select the specified marking (figure) of CCD on the VRG selection box on the CCD Level group of the adjustment software and click it.
 2. In the same way select the specified marking (alphabet) of CCD on the VSUB selection box and click.

4-1-3. Y Gain Adjustment

- Test point : Video output
 - Test equipment : TV monitor, waveform monitor
 - Adjusting point : —
 - Adjusting value : $80 \pm 20\%$
1. Shoot the color bar chart in full size of the screen. In this case, check the white section fully occupies the left side on the screen.
 2. Insert the color temperature conversion filter C14.
 3. Click the [Level Adjust] button on the Y Gain group, and check the luminance level of the white section is automatically set to $80 \pm 20\%$. If not, move the chart position so that the white section is located at left side of the screen and then click the [Level Adjust] button again.
 4. While observing the waveform monitor, adjust Y Gain \blacktriangle \blacktriangledown buttons until the white level shows $80 \pm 10\%$.

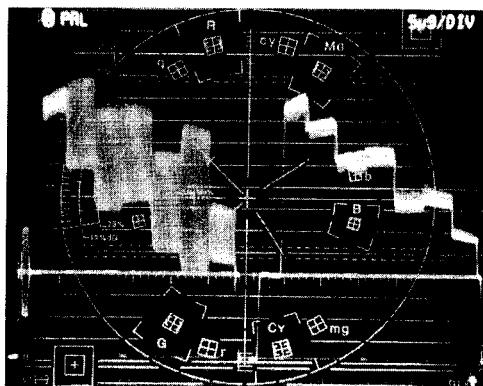


Fig. 4-1-7

4-1-4. WB Adjustment

- Test point : Video output
 - Test equipment : TV monitor, vector scope, waveform monitor
 - Adjusting point : —
 - Adjusting value : Refer to below.
1. Shoot the color bar chart in full size of the screen. In this case, make sure the white section fully occupies the left side on the screen.
 2. Insert the color temperature conversion filter C14.
 3. Click the [Level Adjust] button on the WB ref. group, and check the luminance level of the white section is automatically set to $80 \pm 10\%$. If not, move the chart position so that the white section is located at left side of the screen and then click the [Level Adjust] button again.
 4. While observing the vector scope, adjust R/B scroll bar until the white section is located at vector center.

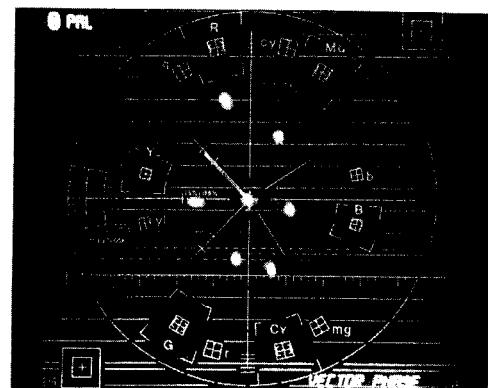


Fig. 4-1-8

4-1-5. C Gain Adjustment

- Test point : Video output
 - Test equipment : TV monitor, vector scope, waveform monitor
 - Adjusting point : —
 - Adjusting value : Refer to below.
1. Shoot the color bar chart in full size of the screen. In this case, make sure the white section fully occupies the left side on the screen.
 2. Insert the color temperature conversion filter C14.

3. Click the **Level Adjust** button on the C gain group, and check the luminance level of the white section is automatically set to $100 \pm 10\%$. If not, move the chart position so that the white section is located at left side of the screen and then click the **Level Adjust** button again.
4. While observing the vector scope, adjust C Gain **▲** **▼** buttons until the R spot is located at center of **■**.

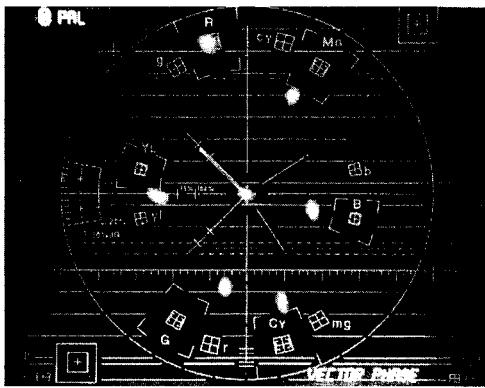


Fig. 4-1-9

4-1-6. Camera Shipping Adjustment

- Test point : —
 - Test equipment : —
 - Adjusting point : —
 - Adjusting value : —
1. Click the **Exit...** button, and a dialogue box will appear on the screen. This completes the camera shipping adjustments.

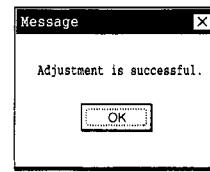


Fig. 4-1-10

Note:

If an error message will appear, check following items.

- Camera power is on.
- Camera and personal computer (COM1 port) are connected.

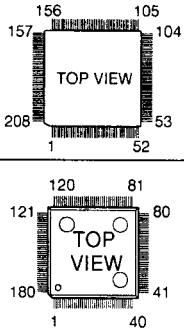
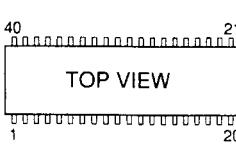
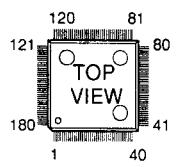
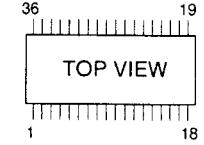
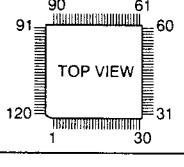
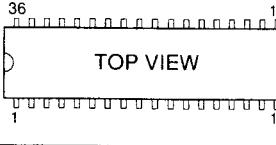
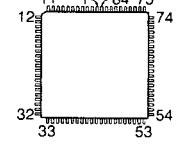
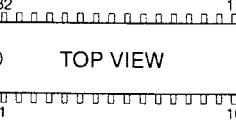
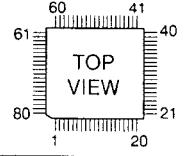
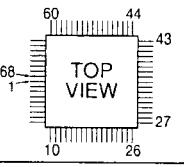
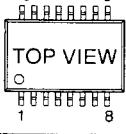
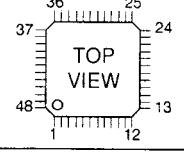
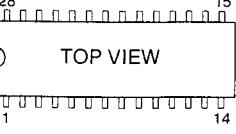
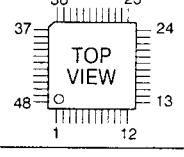
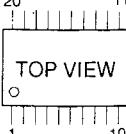
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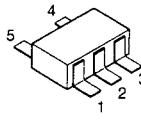
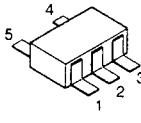
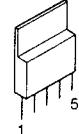
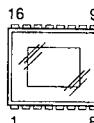
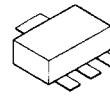
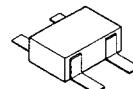
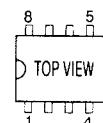
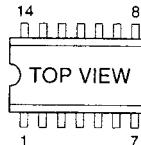
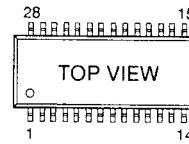
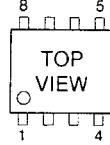
SECTION 2

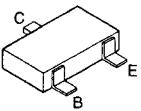
SERVICING DIAGRAMS

1. PART CONFIGURATION AND THEIR SYMBOLS

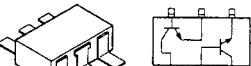
1.ICs

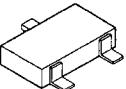
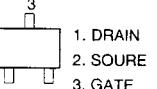
NAME	SHAPE	NAME	SHAPE
TC203E2651AF		CXA2504N	
SYG-TC160G		M52348FP	
HD49811TFA		M52320SP	
EPM7160TLP51		TDA9141	
6473337PROG		TDA4780	
EPM7064TLP51		MC74HC165F MM1024AF LM1201M(TP) M62320FP MAX497CSE	
CXA3106Q		TC9090AN	
HD49322BF CXA1855Q MB40950PFQ CXA3026Q		TC74HCT240AF	
MB814265-60		CXD1267AN	

NAME	SHAPE	NAME	SHAPE
UPD4721GS M52347FP M62399FP	 TOP VIEW	TC7S04F TC7S04FU TC7S08F TC7S14F RN5VD27A	 TOP VIEW
MC74HC541FEL	 TOP VIEW	TC7S32F	 TOP VIEW
TDA4672	 TOP VIEW	PQ20VZ1U LM2991SX	 TOP VIEW
ICX059AK-6	 TOP VIEW	2SC2873-Y(C) TA78L05F	 TOP VIEW
CXA1315M TDA4665T	 TOP VIEW	MM1031XMR	 TOP VIEW
TLC2932IPW	 TOP VIEW	CAT24C16J	 TOP VIEW
TC74HC125AF MC74HC14AF UPD74HC4066A	 TOP VIEW	CD0016AM	 TOP VIEW
TDA7056A	 TOP VIEW	2.TRANSISTORS	
MC33078M,AK93C65LV M5222FP,EL2244CS TC4W66F(BRA),AD8072JR TC7W32FU,MAX4121CSA TC7W74FU SN75372PS	 TOP VIEW	PQ05SZ1U	 TOP VIEW

NAME	SHAPE
RN1402,RN2404 2SA1586-Y,2SC3356 2SA1162-Y,2SC3931-C 2SC4116-Y,UN5211 2SC2712-Y,UN5111 2SC2712-Y,UN5213	

UMZ1	
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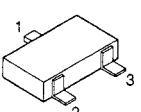
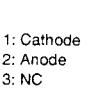
XN6213	
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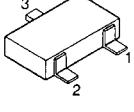
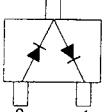
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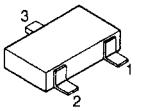
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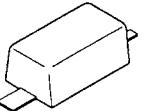
3.DIODEs

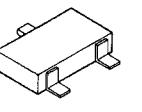
MTZJ15B	 
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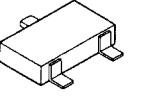
RD10MB2	
	

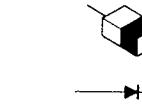
ISS302	
	

NAME	SHAPE
ISS187	

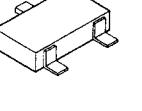
MA111	
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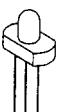
ISS301	
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RD12M RD15M-T2BB2 RD5.1M-T1BB2 RD2.4M	
--	---

1T363	
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DTZ8.2B DTZ15C	
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RD6.2M-T2BB2 RD2.0M-T1BB	
-----------------------------	---

SPR325MVWMNP	
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1-1. Replacing Subminiature "CHIP" Parts

1-1-1. Required Tools:

1. Fine tipped, well insulated soldering "pencil", about 30 Watts.
2. Tweezers.
3. Blower type hair dryer.

1-1-2. Soldering Cautions:

1. Do not apply heat for more than 3s.
2. Avoid using a rubbing stroke when soldering.
3. Discard removed chips; do no reuse them.
4. Supplementary cementing is not required.
5. Use care not to scratch or otherwise damage the chips.

1-1-3. Removal (Resistors, Capacitors, etc.):

1. Melt the solder at one side.

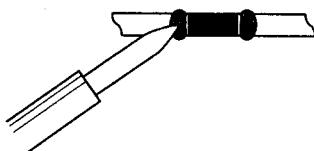


Fig. 1-1-1

2. Grasp the part with tweezers and melt the solder at the other side.

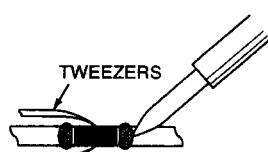


Fig. 1-1-2

3. Remove the part with a twisting motion.

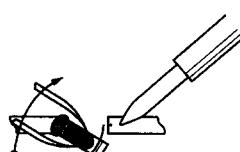


Fig. 1-1-3

1-1-4. Removal (Transistors, Diodes, etc.):

1. Melt the solder of one lead.

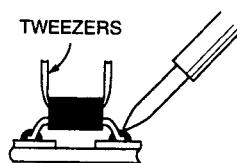


Fig. 1-1-4

2. Lift the side of that lead upward.

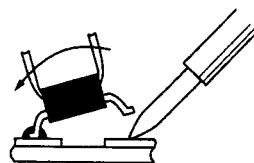


Fig. 1-1-5

3. Simultaneously heat solder the two remaining leads and lift part to remove.

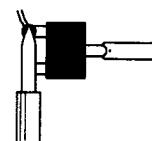


Fig. 1-1-6

1-1-5. Preheating (Except for semiconductors):

Immediately before installing new resistors or capacitors, use a blower type hair dryer and preheat the part for about two min. at approximately 150°C.

1-1-6. Replacement:

1. Presolder the contact points of the circuit pattern.

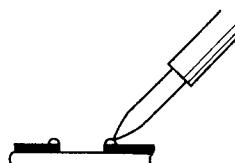


Fig. 1-1-7

2. Press the part downward with tweezers and apply the soldering pencil as indicated in the figure.

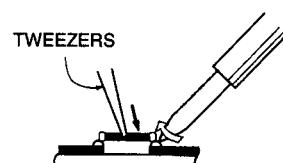


Fig. 1-1-8

1-2. Precautions for Part Replacement

- In the schematic diagram, parts marked Δ (ex. Δ F801) are critical part to meet the safety regulations, so always use the parts bearing specified part codes (SN) when replacing them.
- Using the parts other than those specified shall violate the regulations, and may cause troubles such as operation failures, fire etc.

1-3. Solid Resistor Indication

Unit	None Ω k $k\Omega$ M $M\Omega$
Tolerance	None $\pm 5\%$ B $\pm 0.1\%$ C $\pm 0.25\%$ D $\pm 0.5\%$ F $\pm 1\%$ G $\pm 2\%$ K $\pm 10\%$ M $\pm 20\%$
Rated Wattage	(1) Chip Parts None 1/16W (2) Other Parts None 1/6W Other than above, described in the Circuit Diagram.
Type	None Carbon film S Solid R Oxide metal film W Metal film W Cement FR Fusible

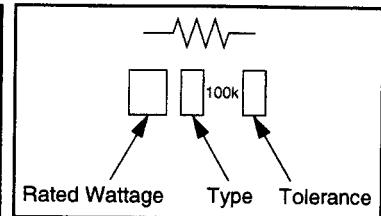


Fig. 1-3-1

1-4. Capacitance Indication

Symbol	— ⁺ Electrolytic, Special electrolytic — ^{NP} Non polarity electrolytic — ^M Ceramic, plastic — ^F Film — ^A Trimmer
Unit	None F μ μF p pF
Rated voltage	None 50V For other than 50V and electrolytic capacitors, described in the Circuit Diagram.
Tolerance	(1) Ceramic, plastic, and film capacitors of which capacitance are more than 10 pF. None $\pm 5\%$ or more B $\pm 0.1\%$ C $\pm 0.25\%$ D $\pm 0.5\%$ F $\pm 1\%$ G $\pm 2\%$ (2) Ceramic, plastic, and film capacitors of which capacitance are 10 pF or less. None more than $\pm 5\% pF$ B $\pm 0.1 pF$ C $\pm 0.25 pF$ (3) Electrolytic, Trimmer Tolerance is not described.
Temperature characteristic (Ceramic capacitor)	None SL For others, temperature characteristics are described. (For capacitors of 0.01 μF and no indications are described as F.)

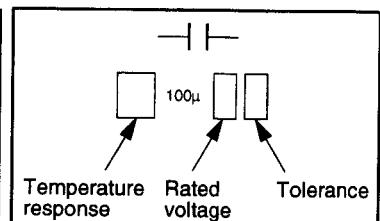


Fig. 1-4-1

1-5. Inductor Indication

Unit	None H μ μH m mH
Tolerance	None ±5% B ±0.1% C ±0.25% D ±0.5% F ±1% G ±2% K ±10% M ±20%
Type	PL Peaking For other, model name is described.

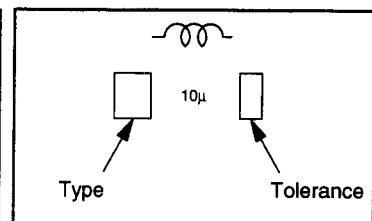


Fig. 1-5-1

1-6. Waveform and Voltage Measurement

- Measurement of waveform and voltage at each section in the color circuits was conducted with sufficient service color bar signal being received and reproduced in normal conditions.
- Waveforms and voltage values for the remaining circuit were measured with a broadcasting signal normally received, so they may vary slightly according to the programs being received. Use them as a measure for servicing.
- All voltage values except the waveforms are expressed in DC and measured by a digital voltmeter.

- If it is difficult to remove the part, temporarily stop the desoldering job and wait until temperature of the part lowers.
Then, repeat steps 1 and 2.
- Form leads of the replacement part (general part equivalent to the chip part) as shown in the figures and solder place. (Fig. 1-7-2)

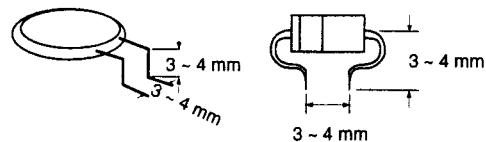


Fig. 1-7-2

1-7. Chip Part Replacement

(Use spare part with wire leads connected.)

- Hold a Chip part to be removed with tweezers and apply heat to the solder at one end of the part with a soldering iron. (Fig. 1-7-1)

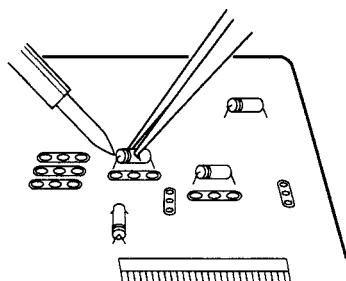


Fig. 1-7-1

- Apply heat to the solder at the other end of the part and remove it.

The heating time should be as short as possible so the excessive heat is not applied to foil patterns and the PC Board.

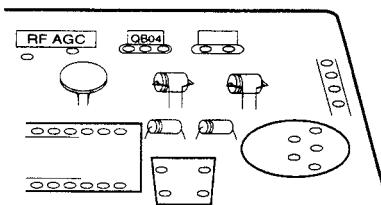


Fig. 1-7-3

2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM

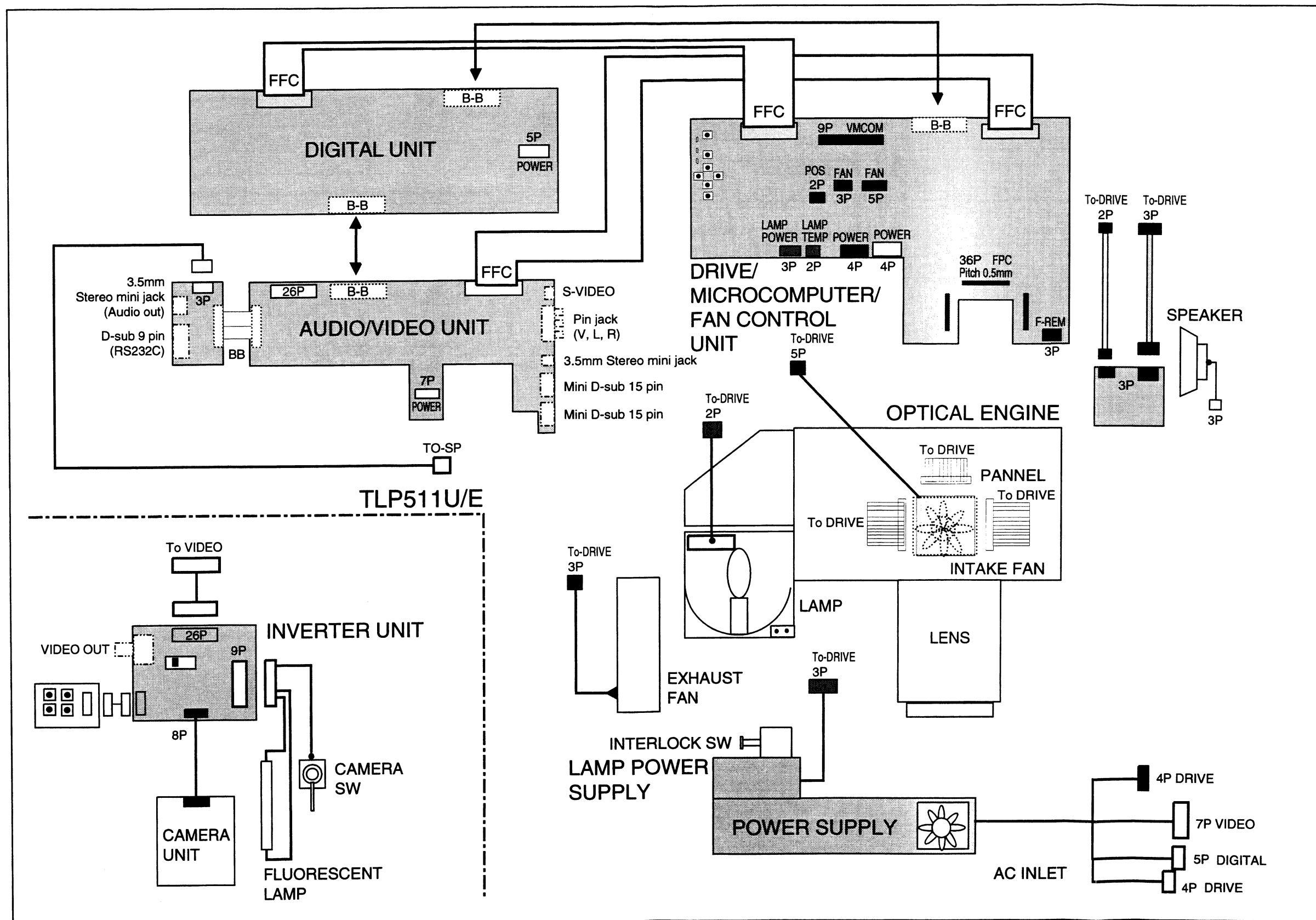


Fig. 2-0-1

3. BLOCK DIAGRAMS

3-1. System Block Diagram

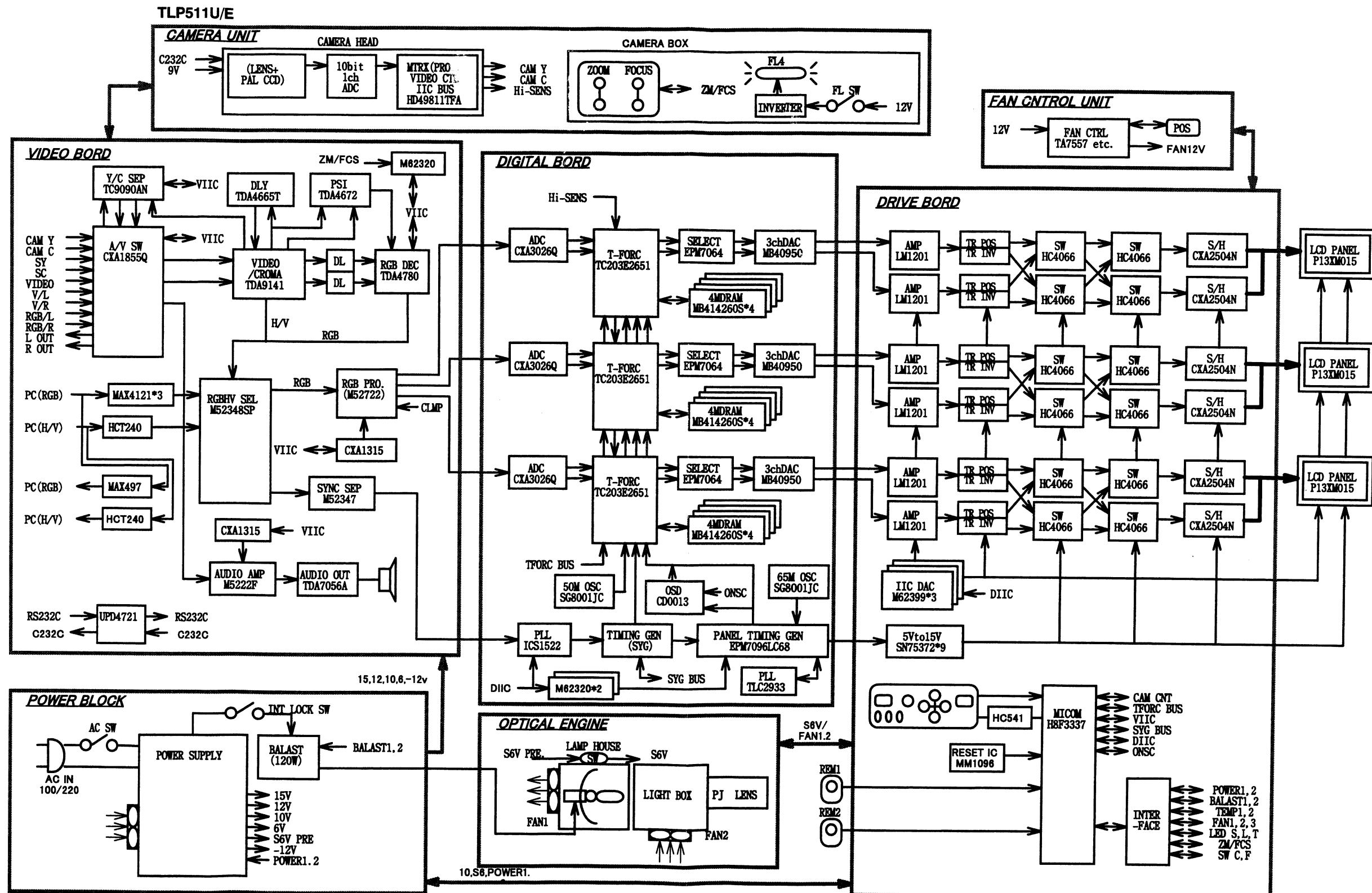
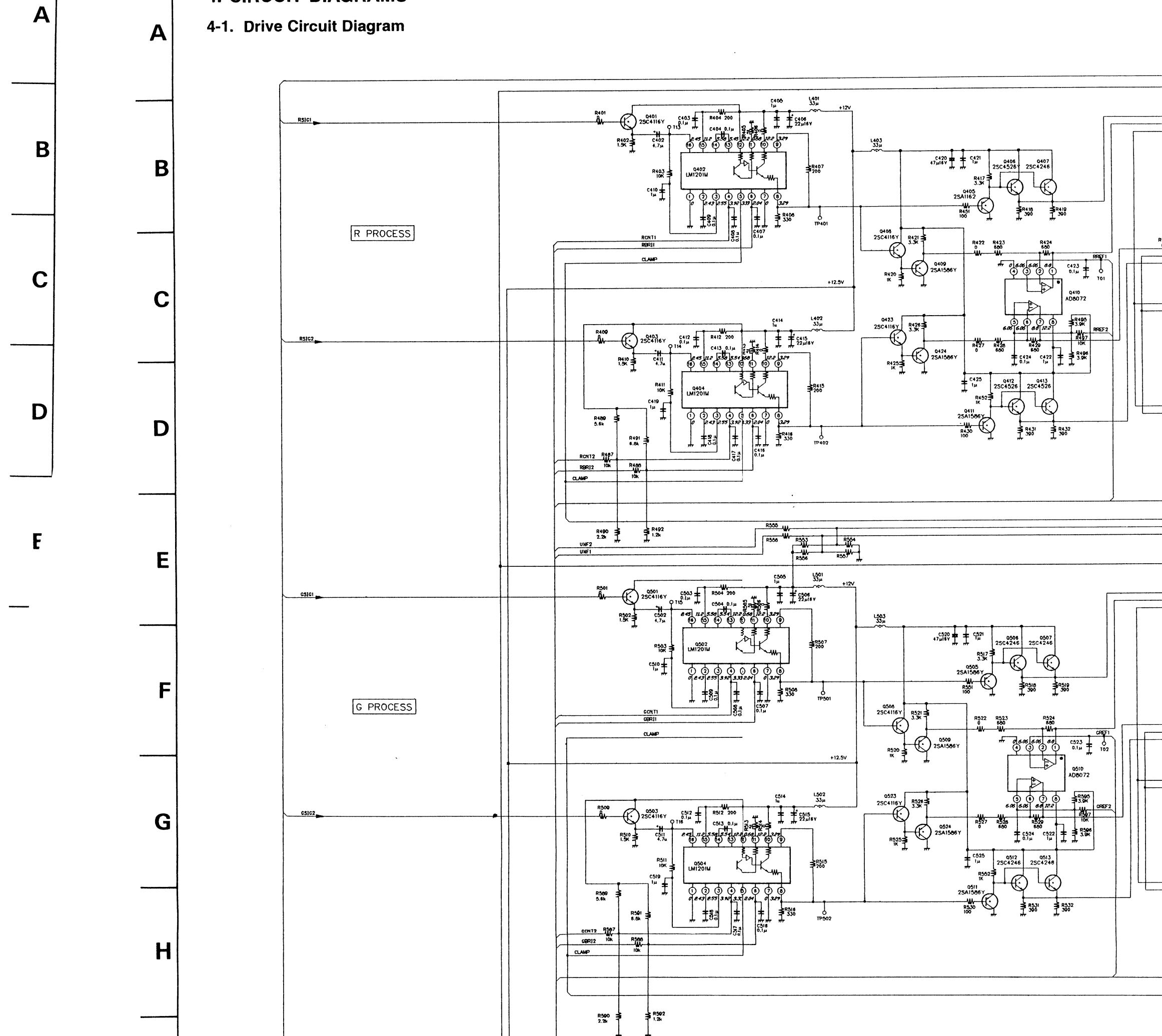


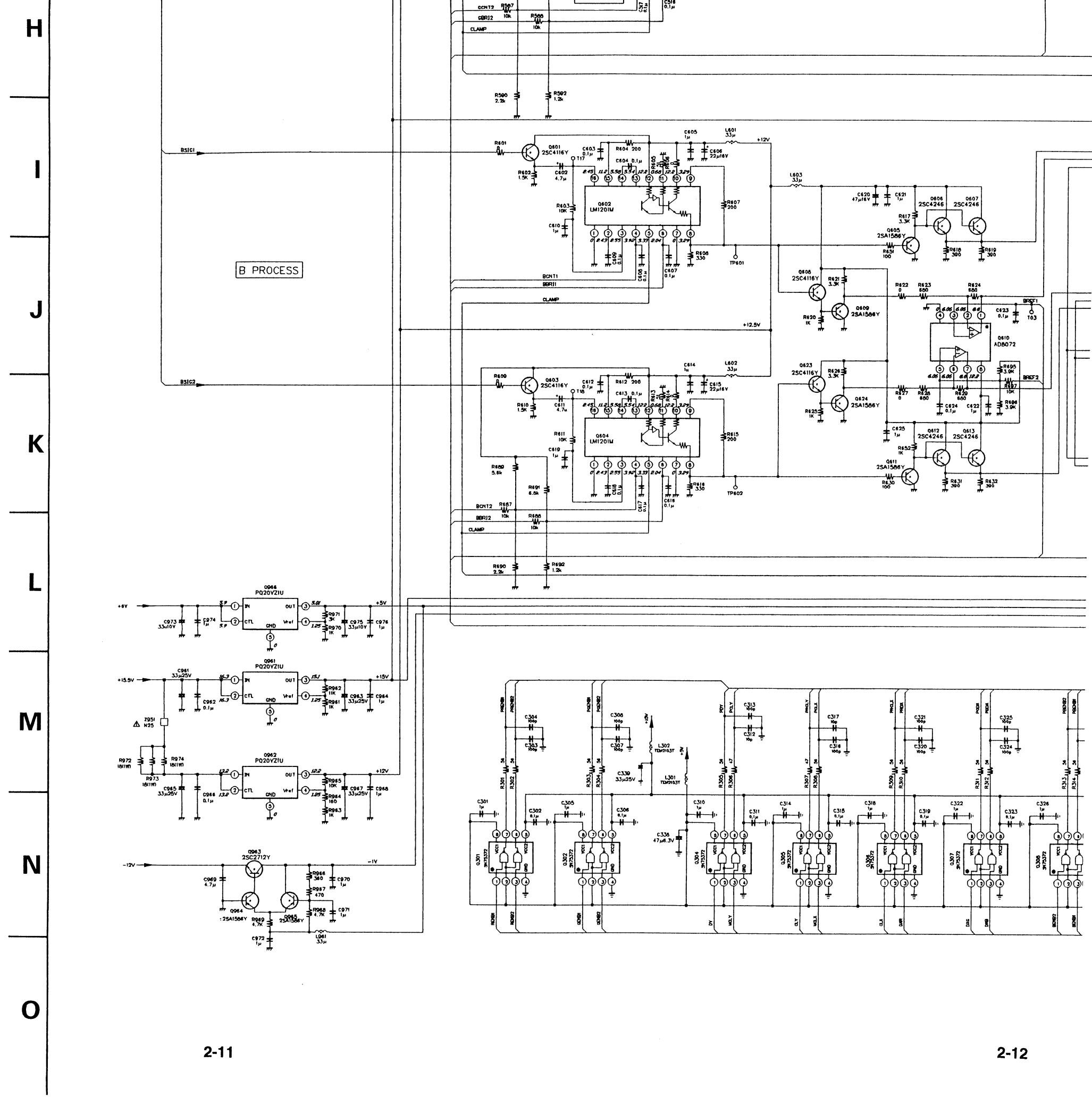
Fig. 3-1-1

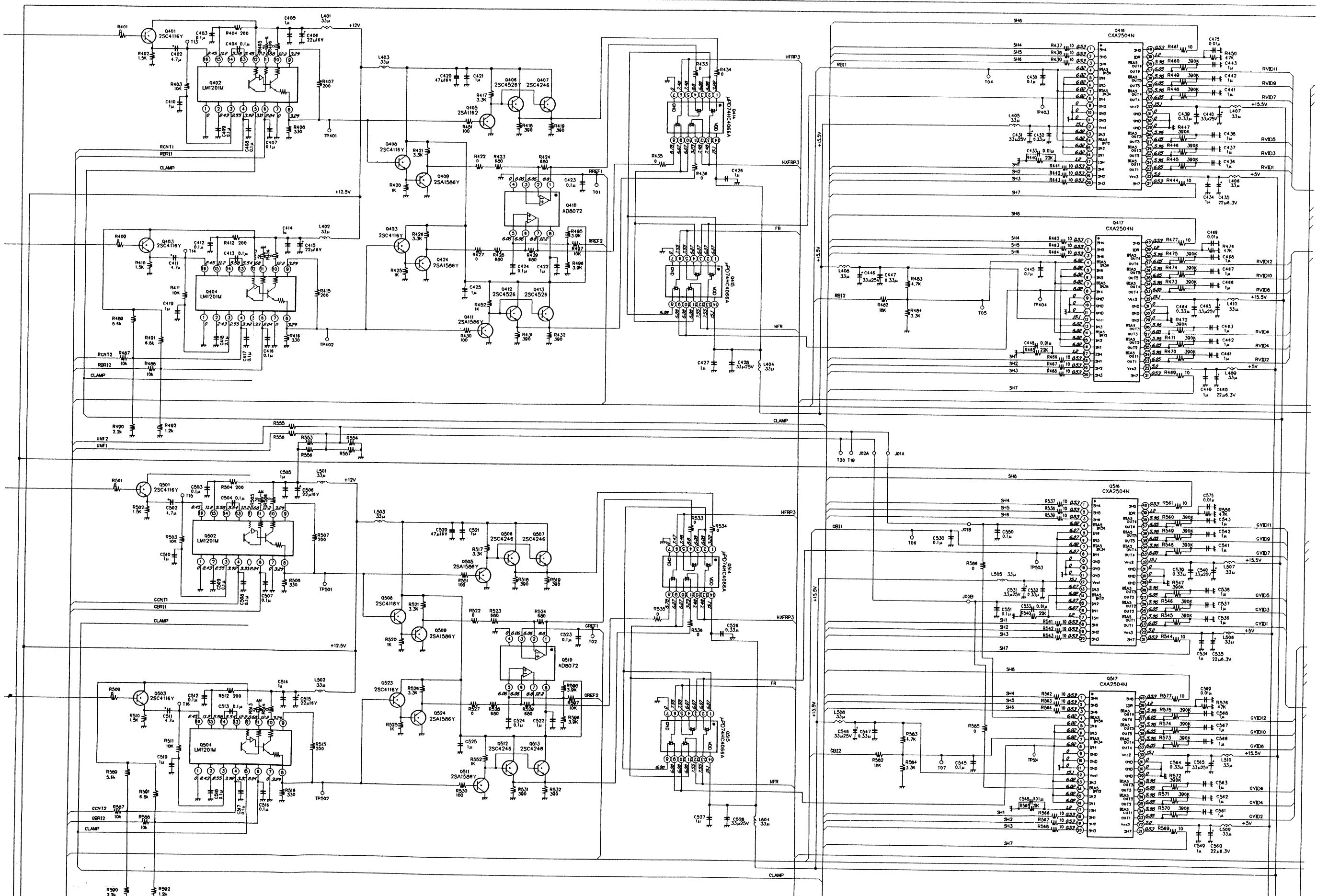
A horizontal scale with vertical tick marks at each integer value from 1 to 8. The scale is labeled with the numbers 1, 2, 3, 4, 5, 6, 7, and 8.

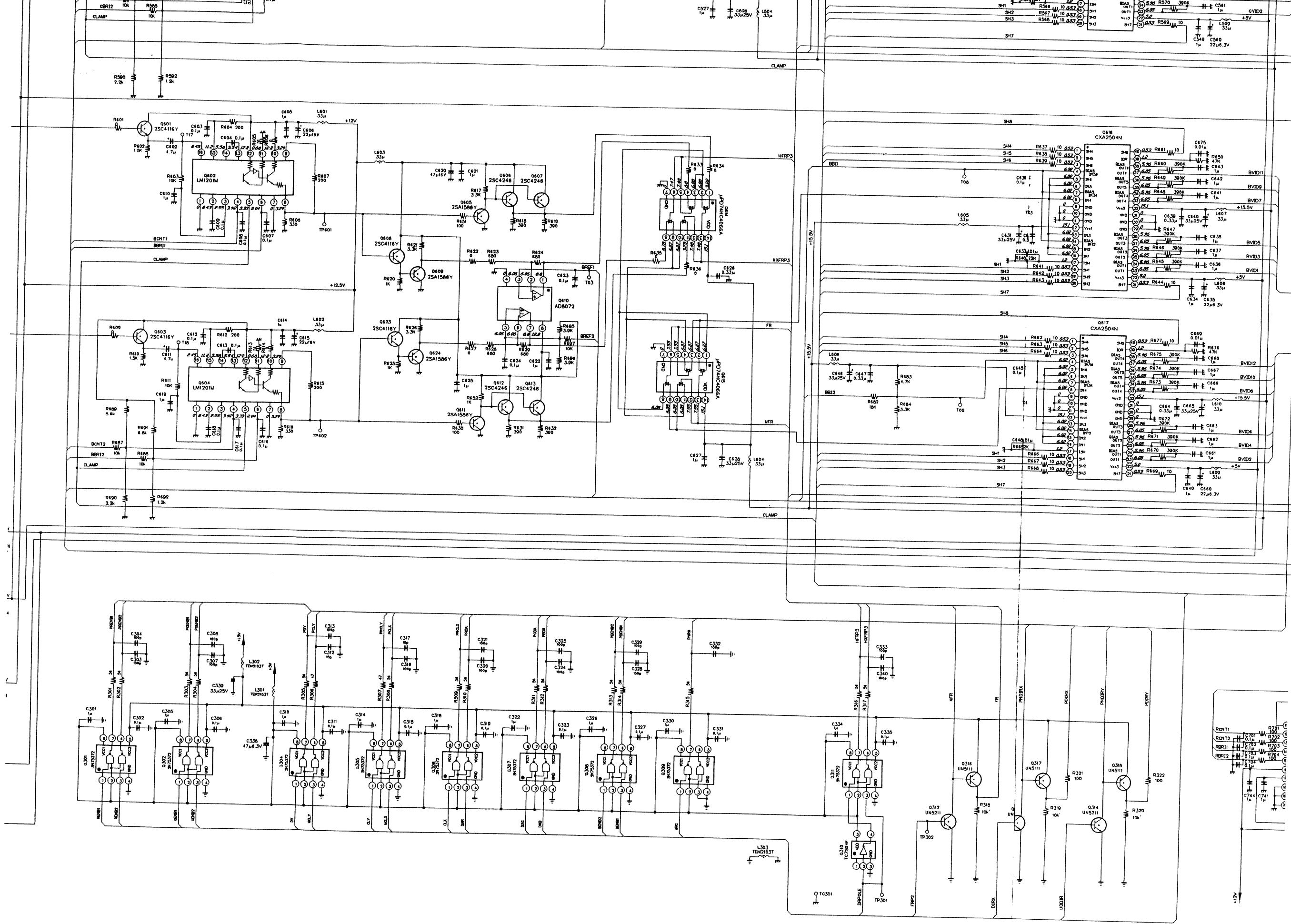
4. CIRCUIT DIAGRAMS

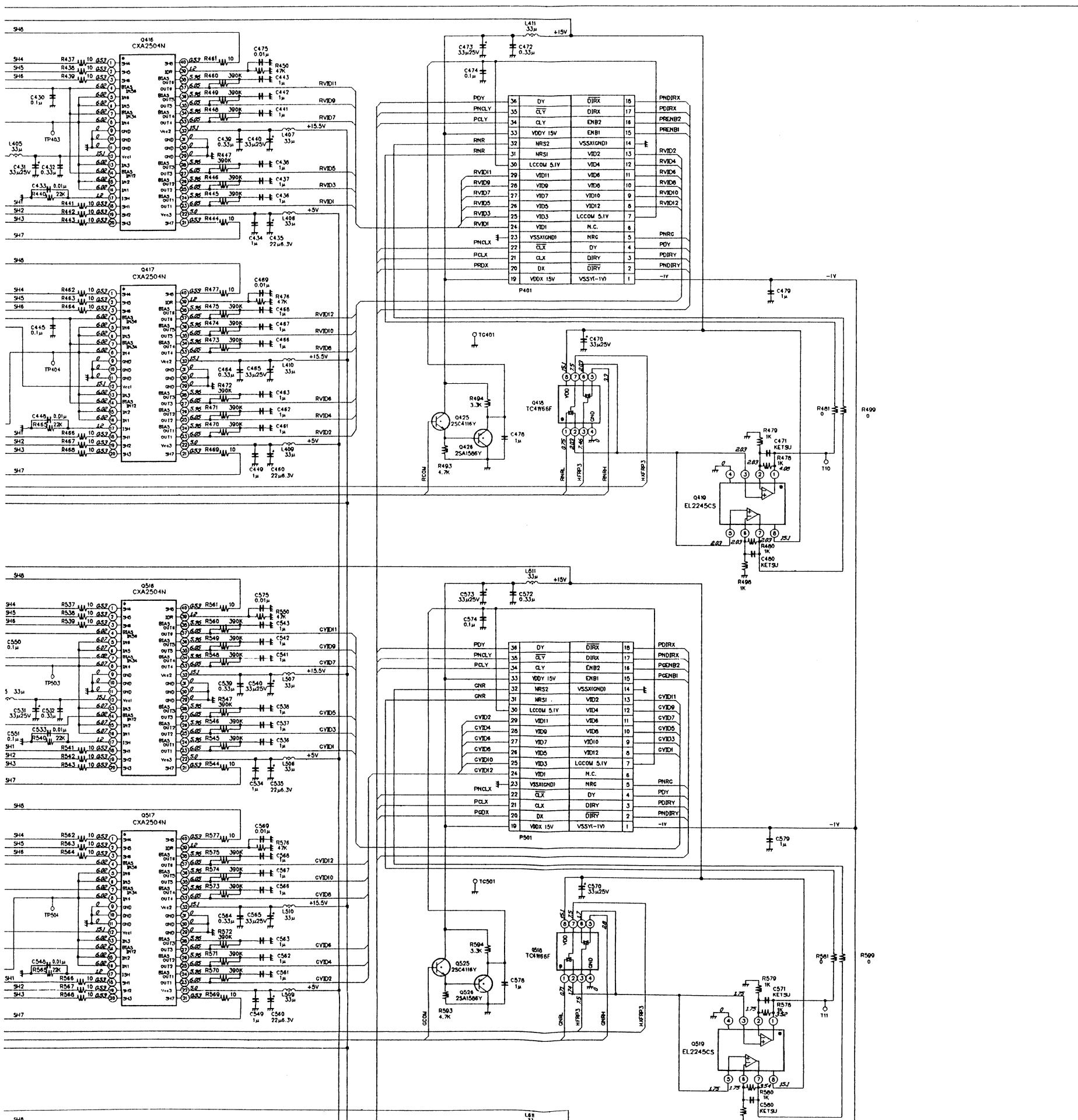
4-1. Drive Circuit Diagram











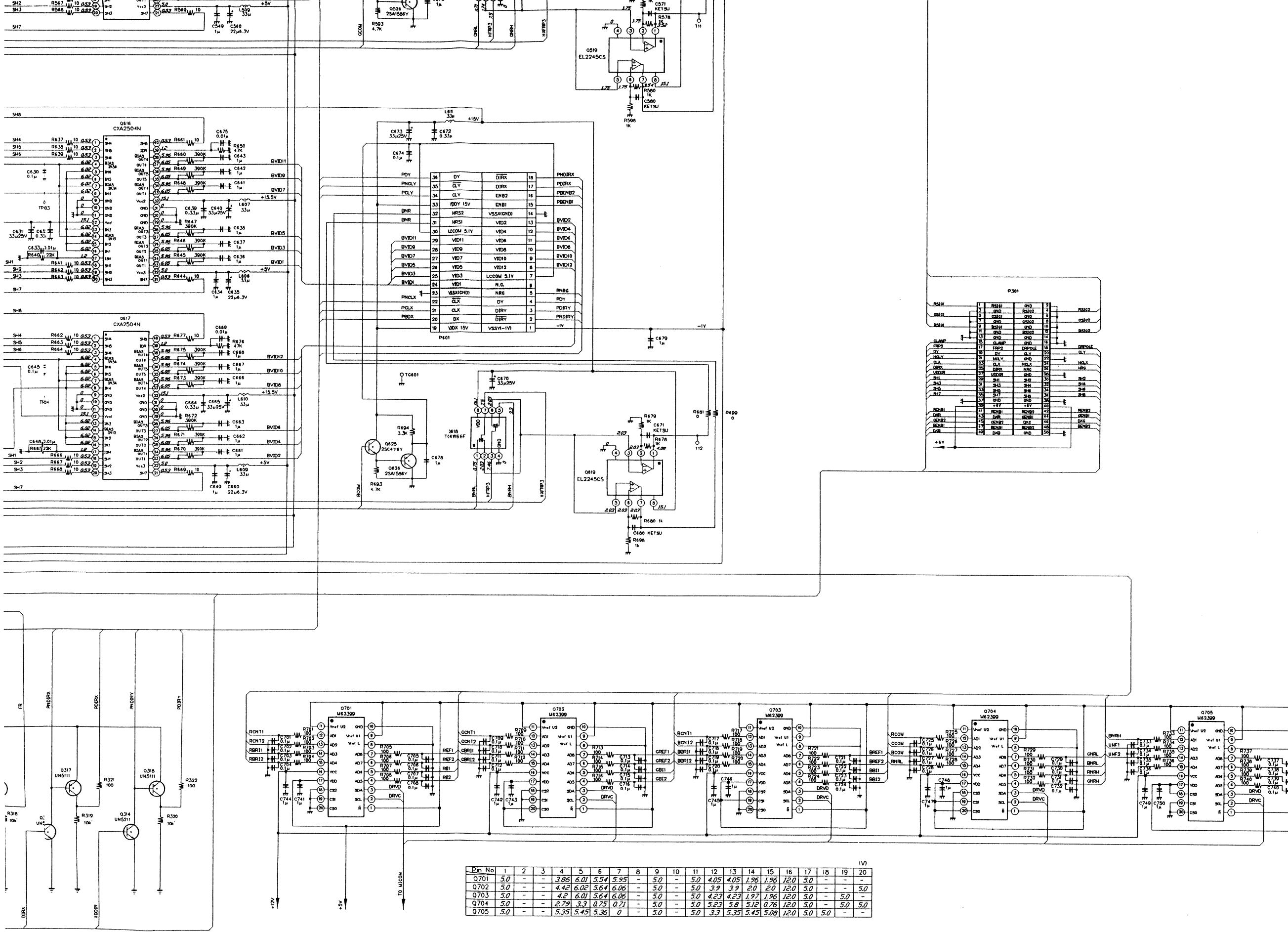
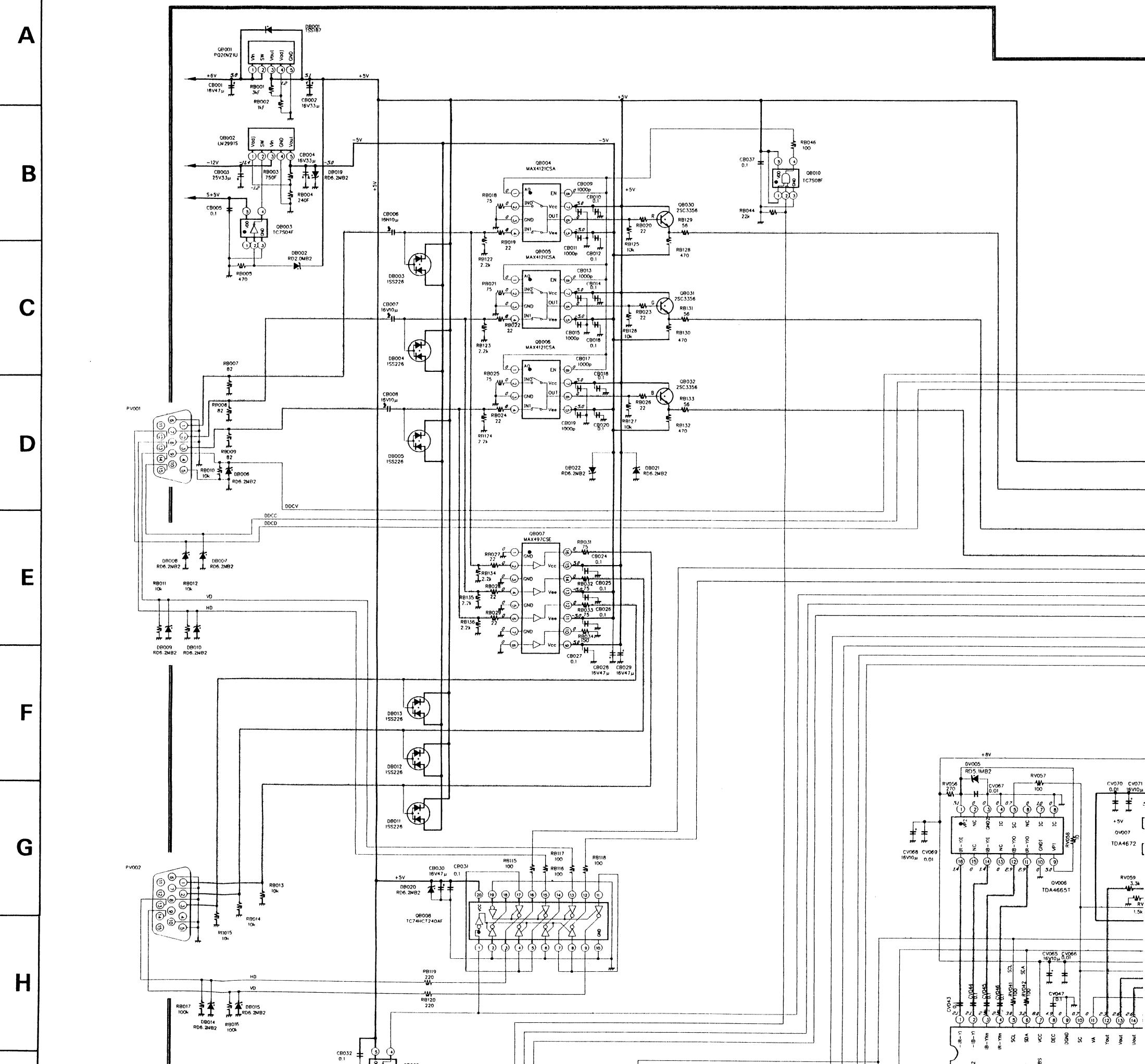
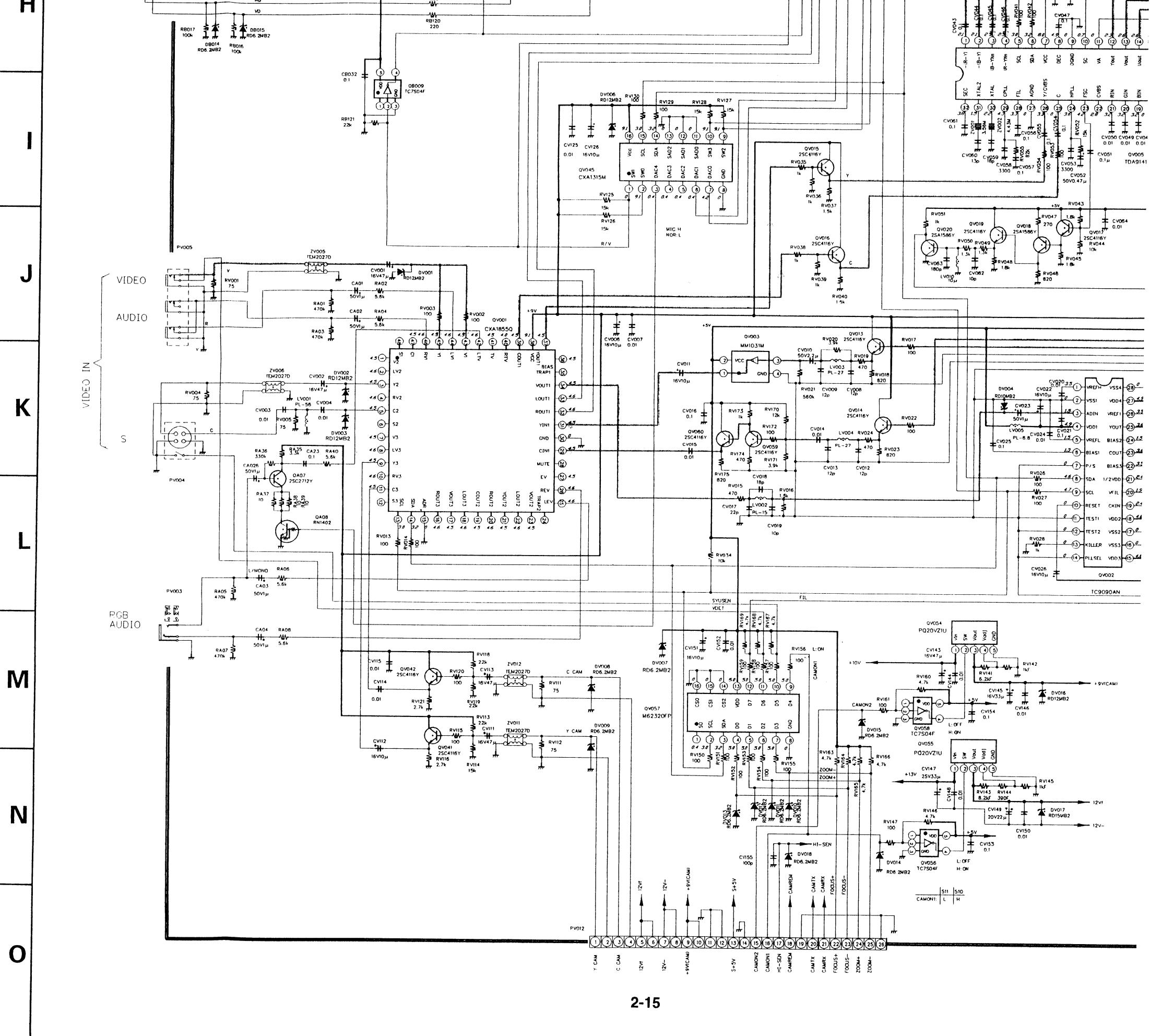


Fig. 4-1-1

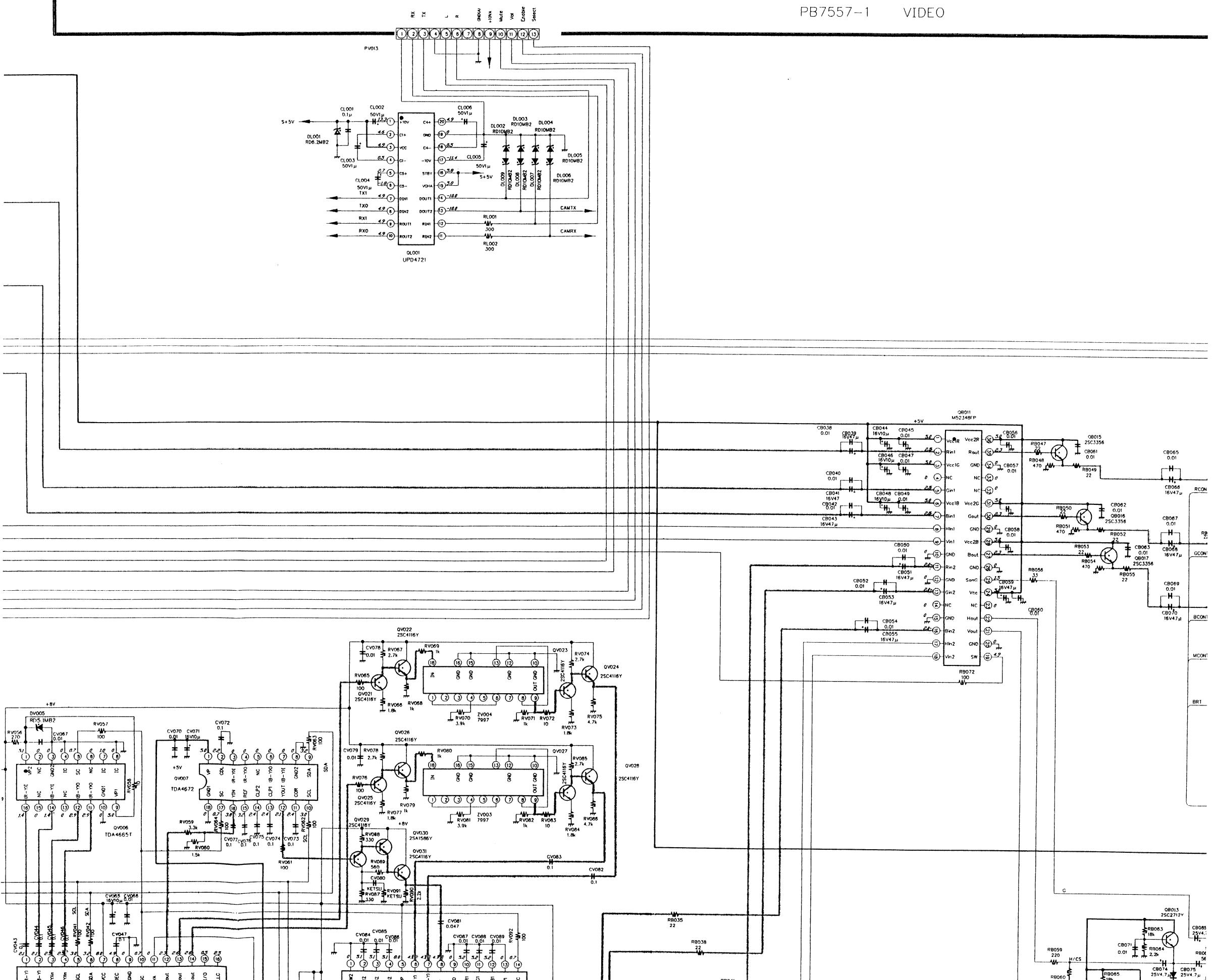
1 2 3 4 5 6 7 8

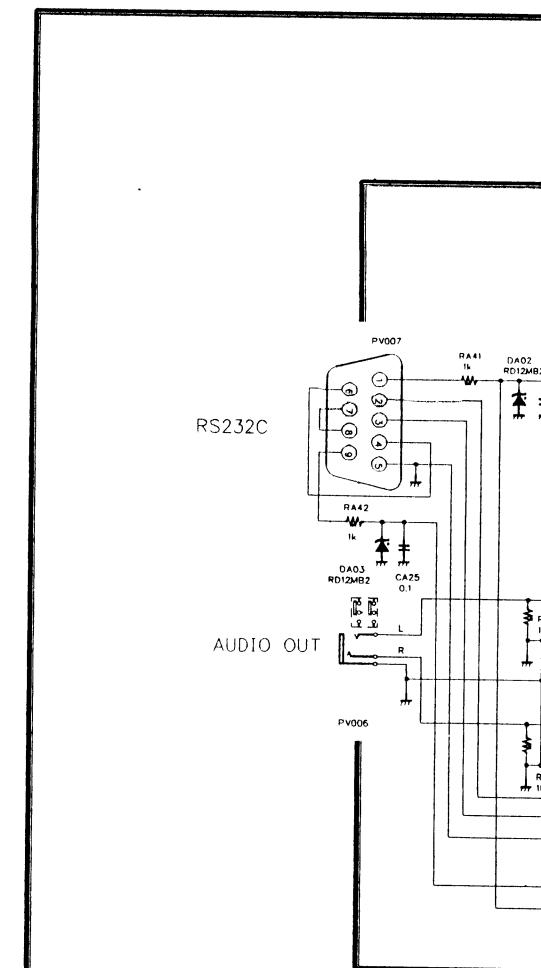
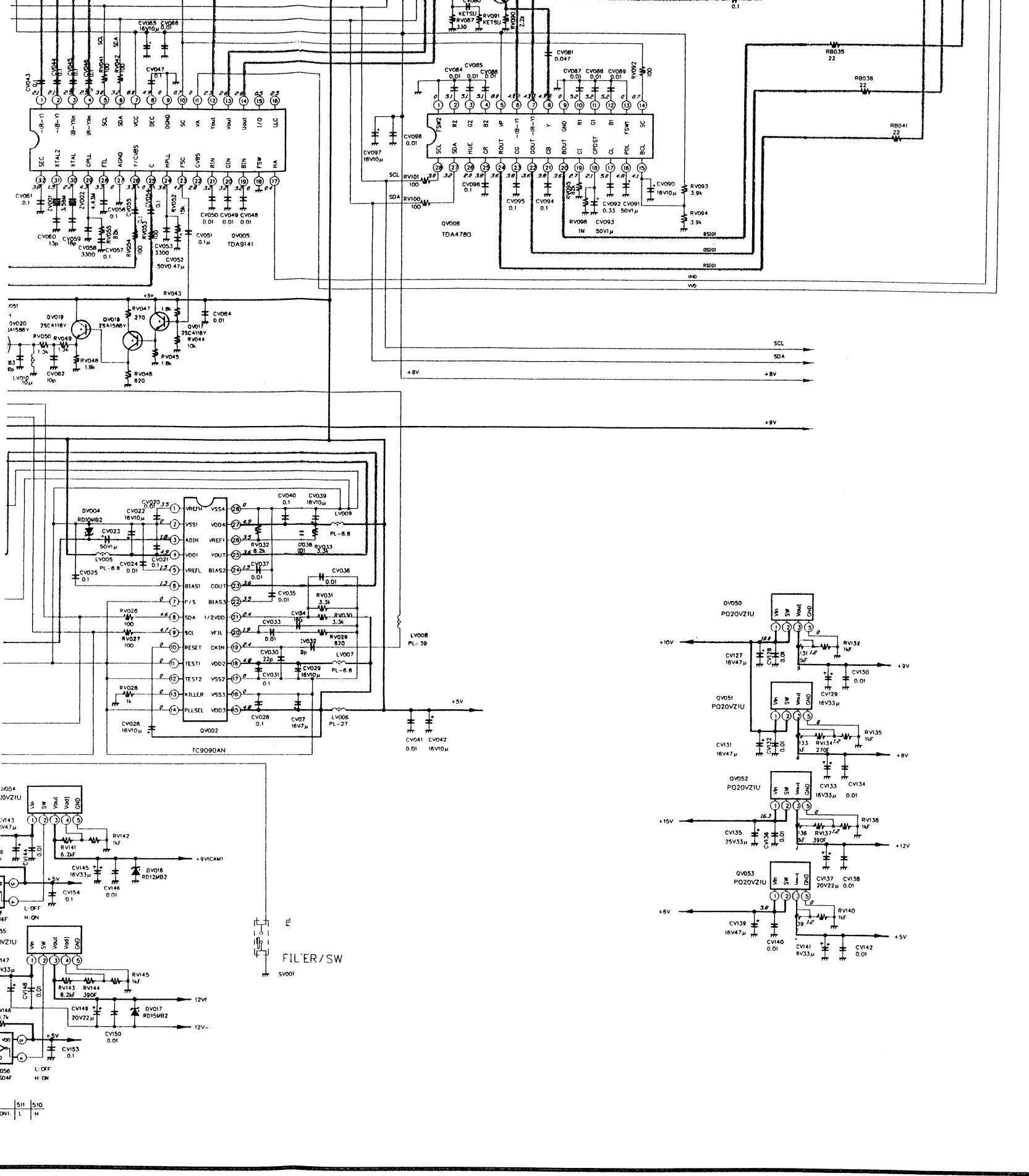
4-2. Video/Audio Circuit Diagram



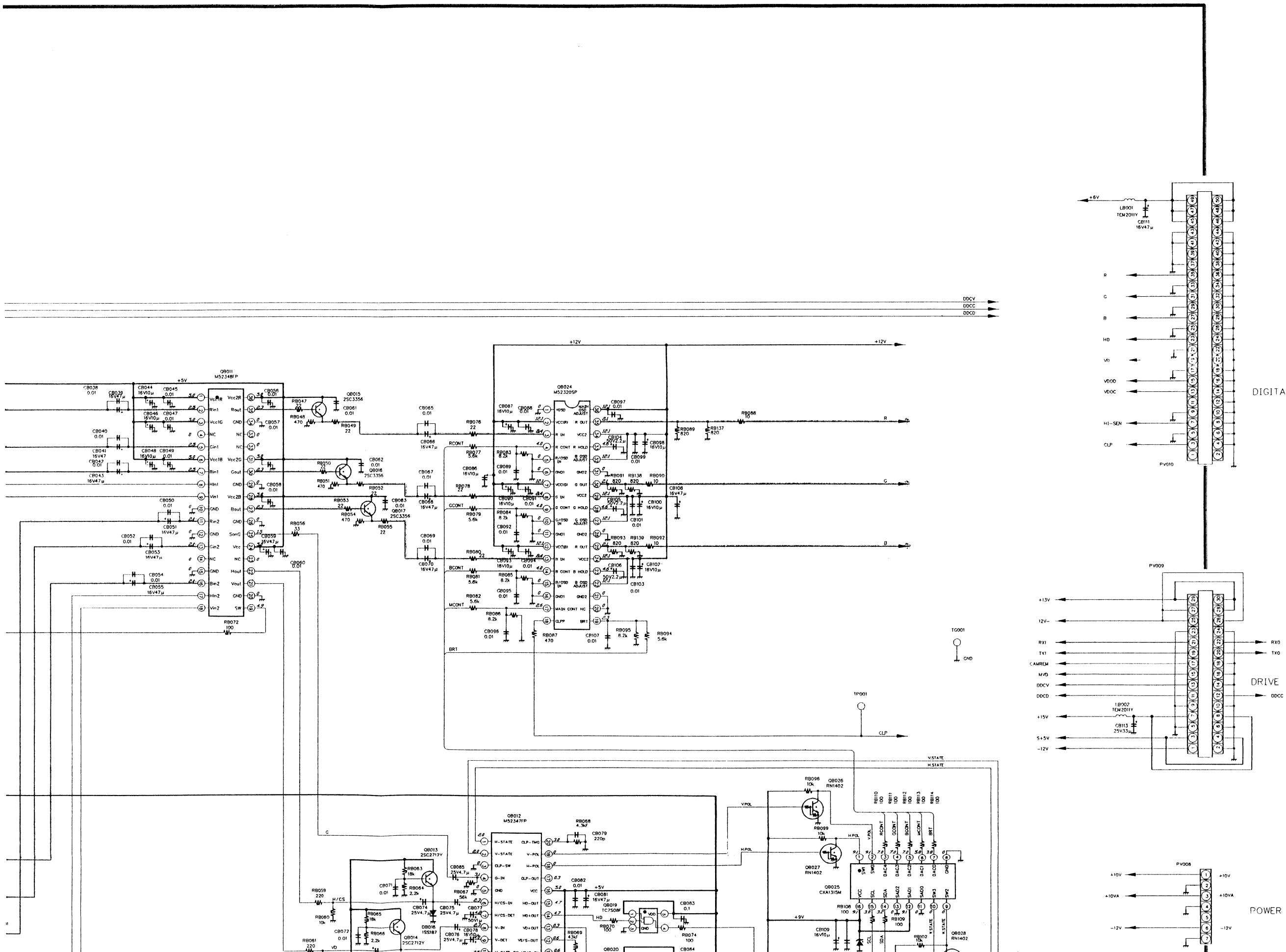


PB7557-1 VIDEO





PB7557-1 VIDEO



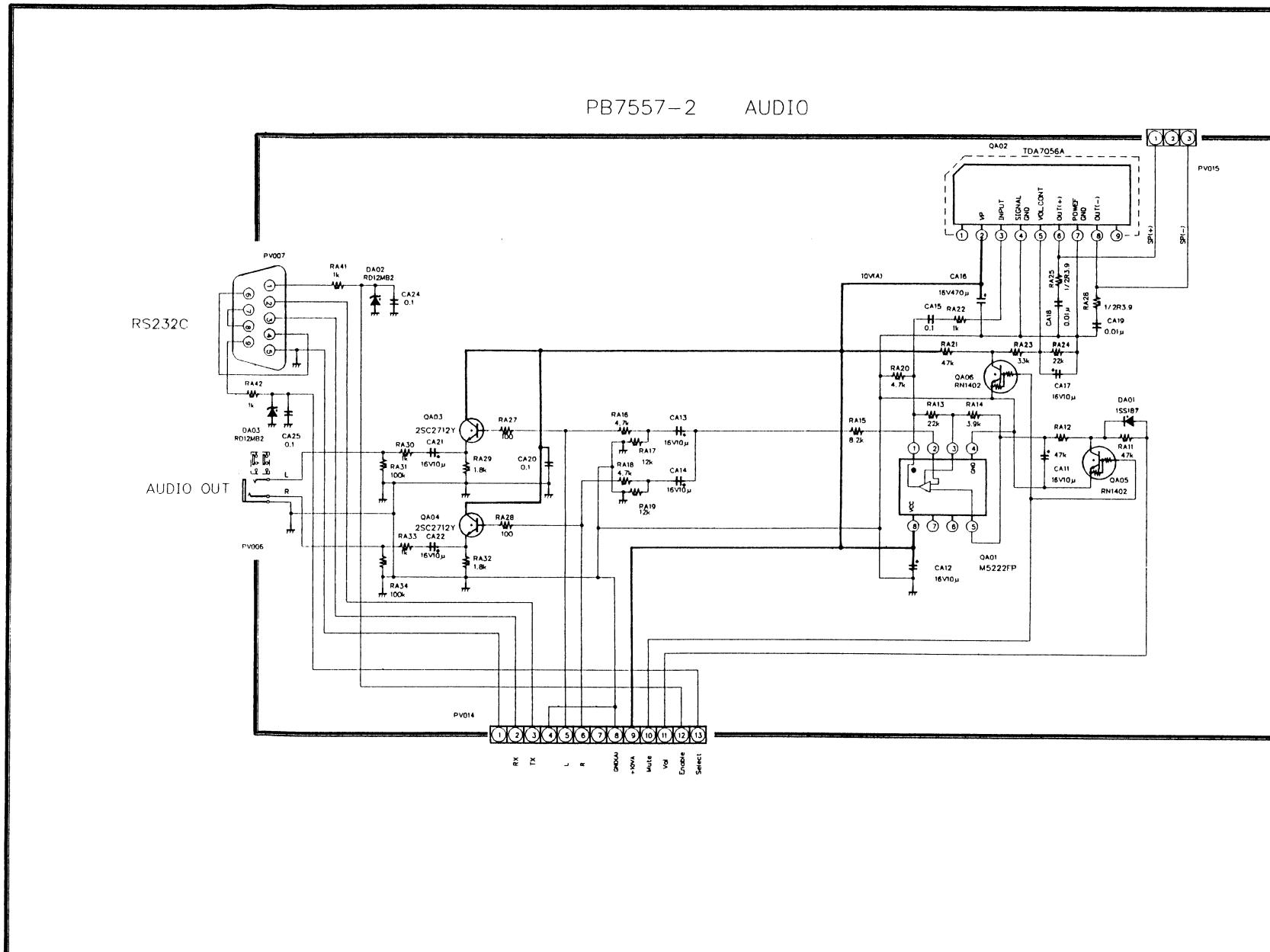
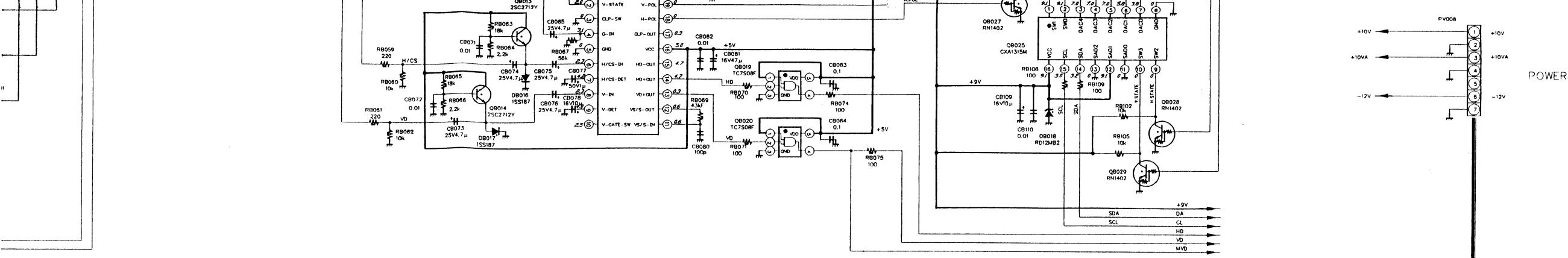


Fig. 4-2-1

4-3. Digital (Rch) Circuit Diagram

A

B

C

D

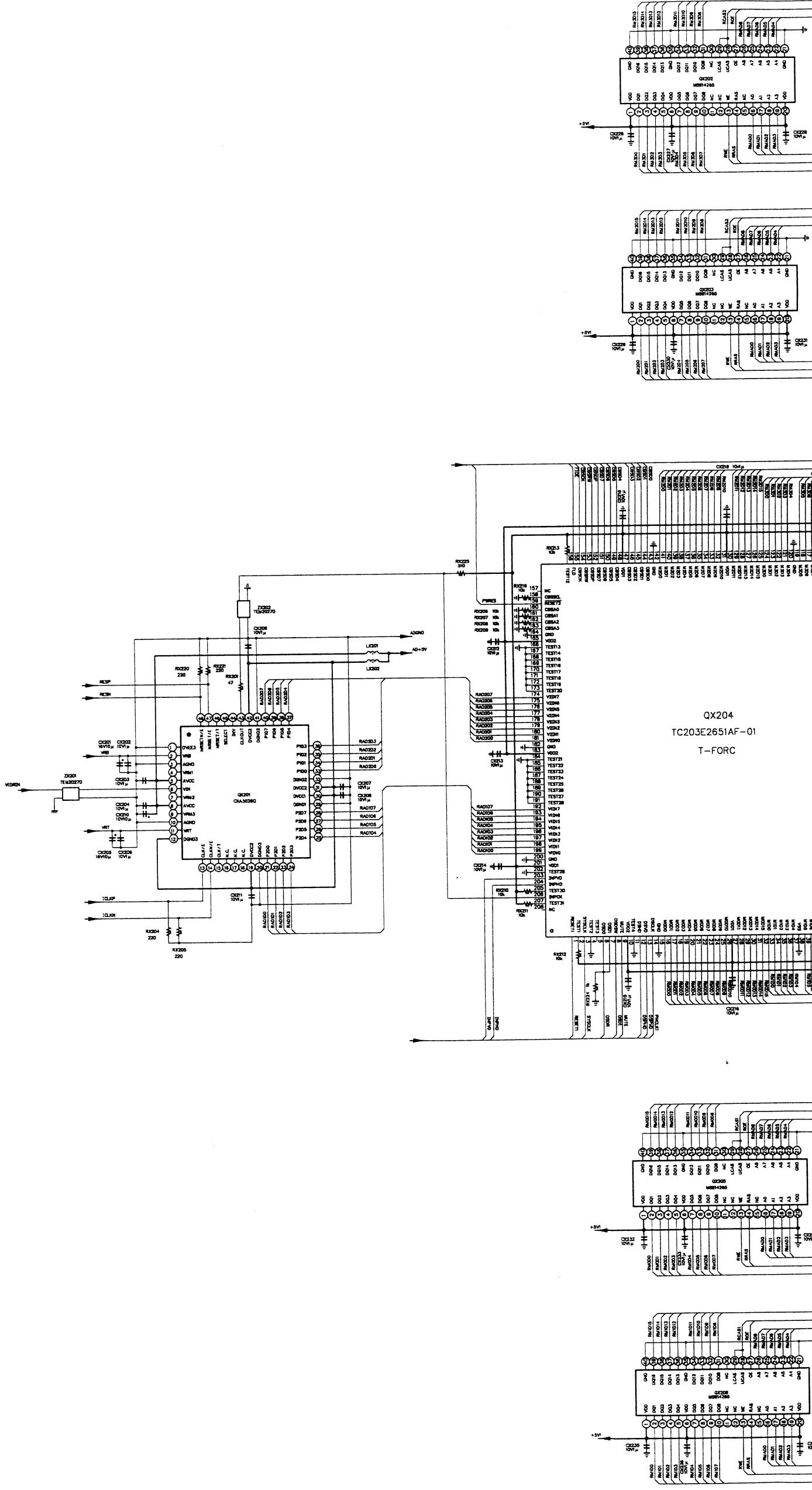
E

1

G

4

1



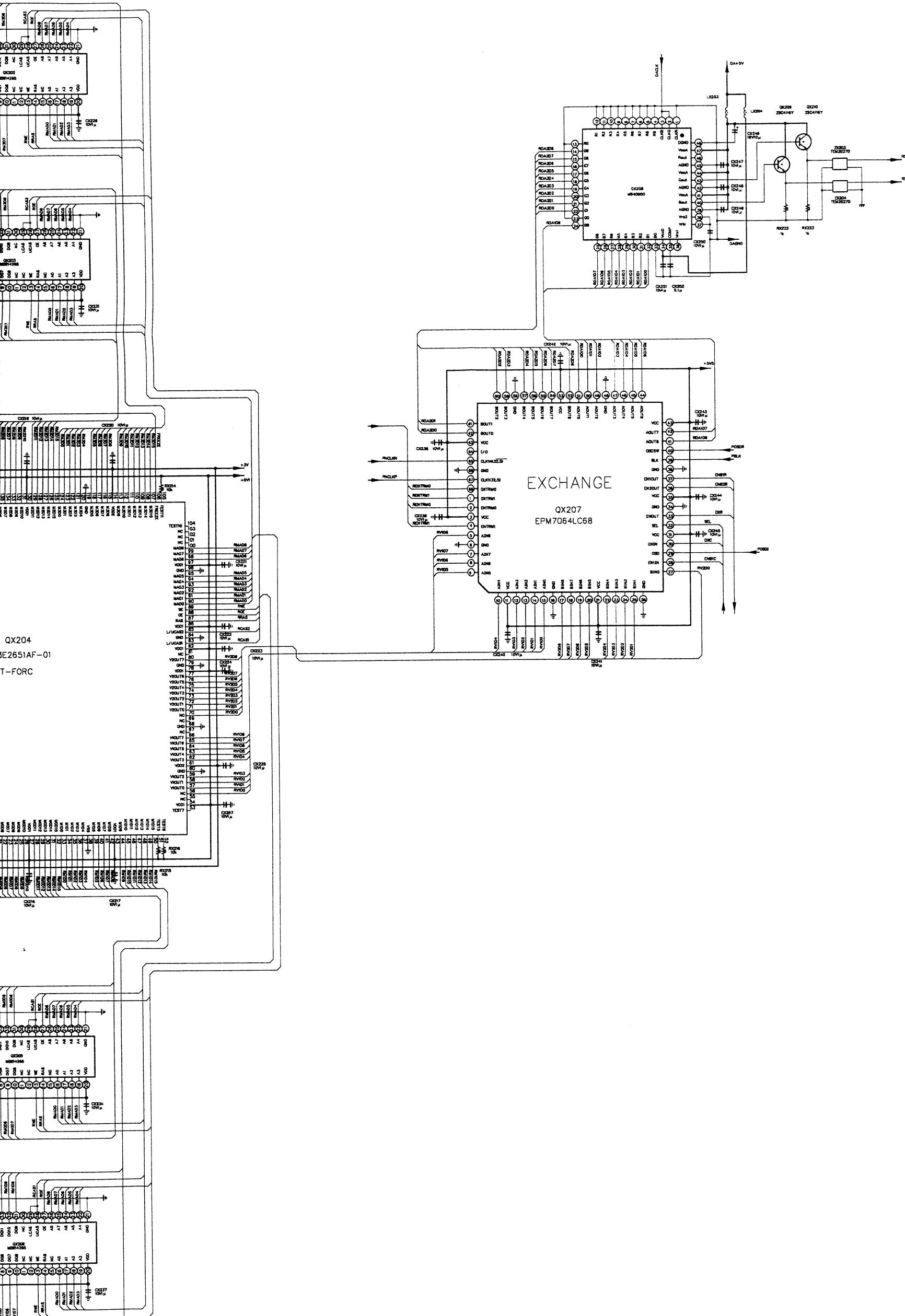


Fig. 4-3-1

4-4. Digital (Gch) Circuit Diagram

A

B

C

D

E

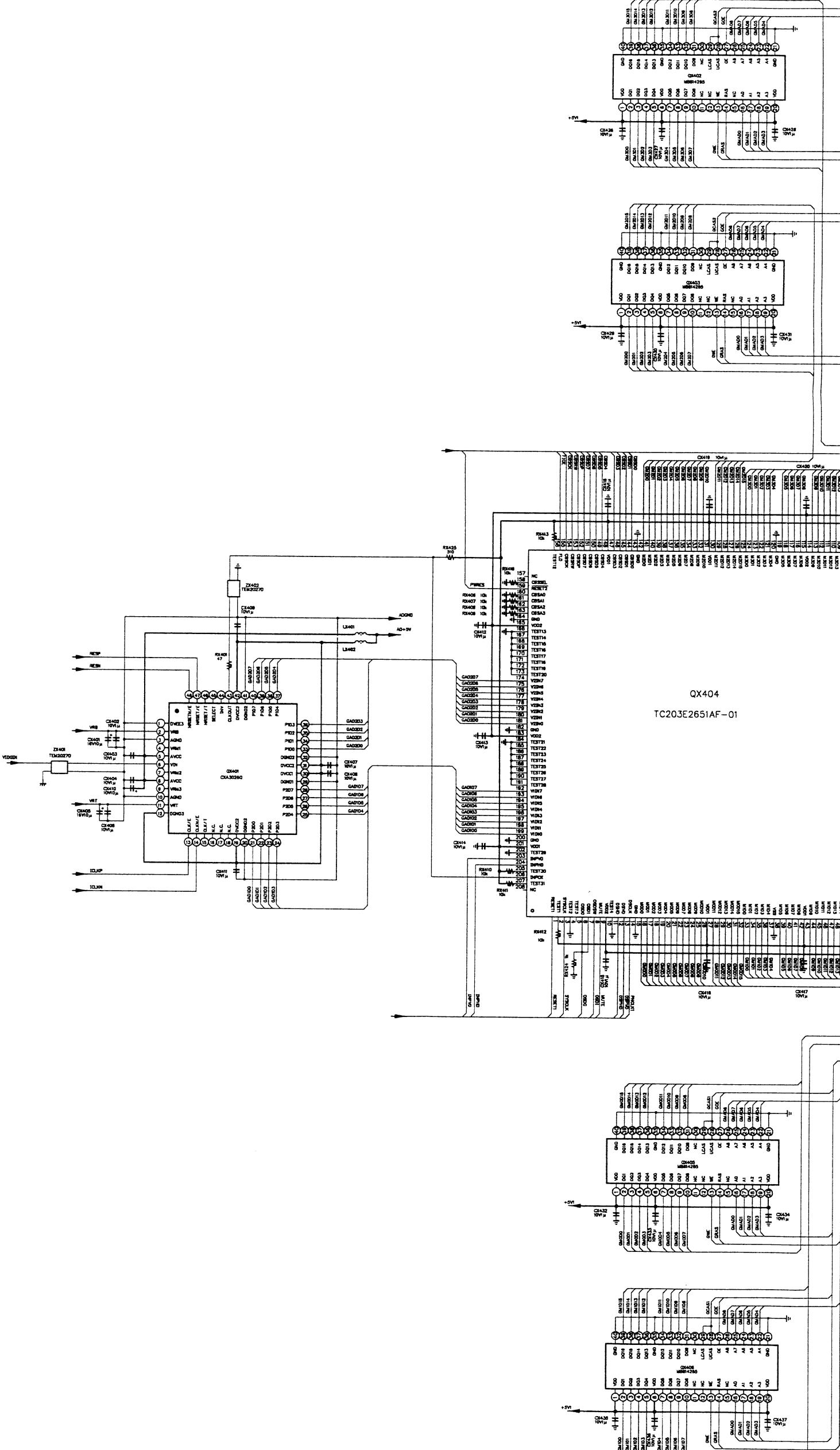
F

G

H

I

J



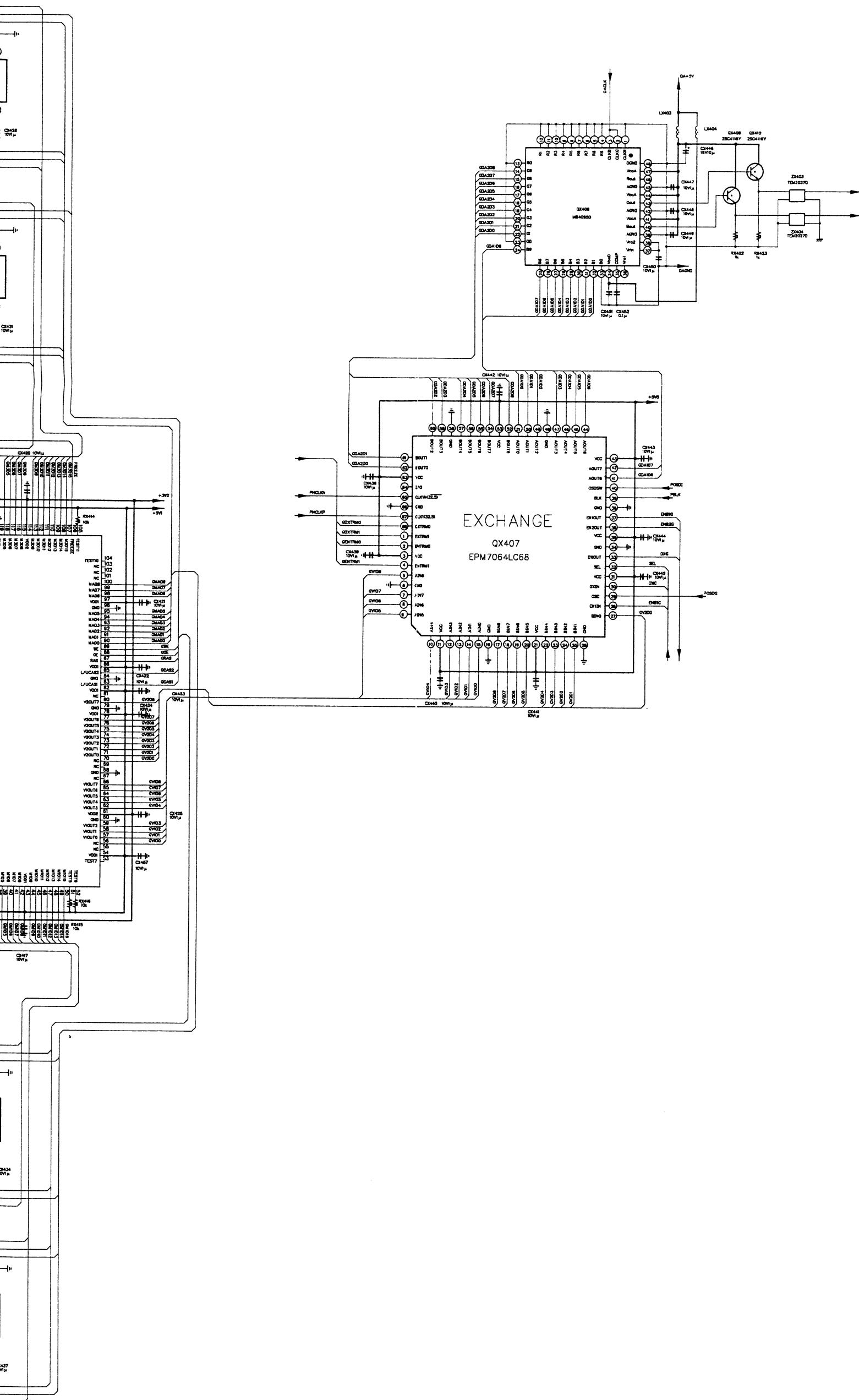


Fig. 4-4-1

4-5. Digital (Bch) Circuit Diagram

A

B

C

D

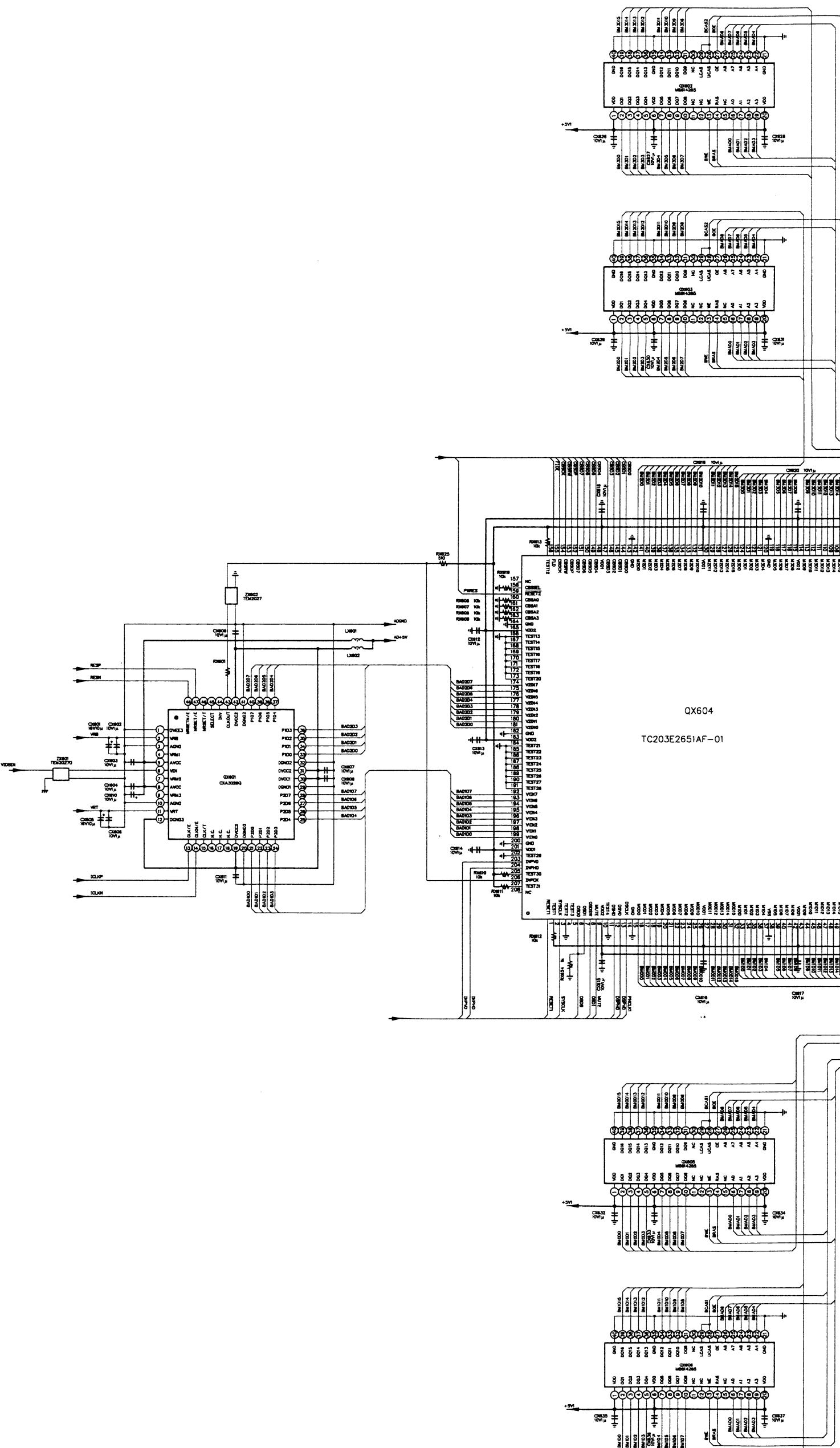
E

F

G

H

J



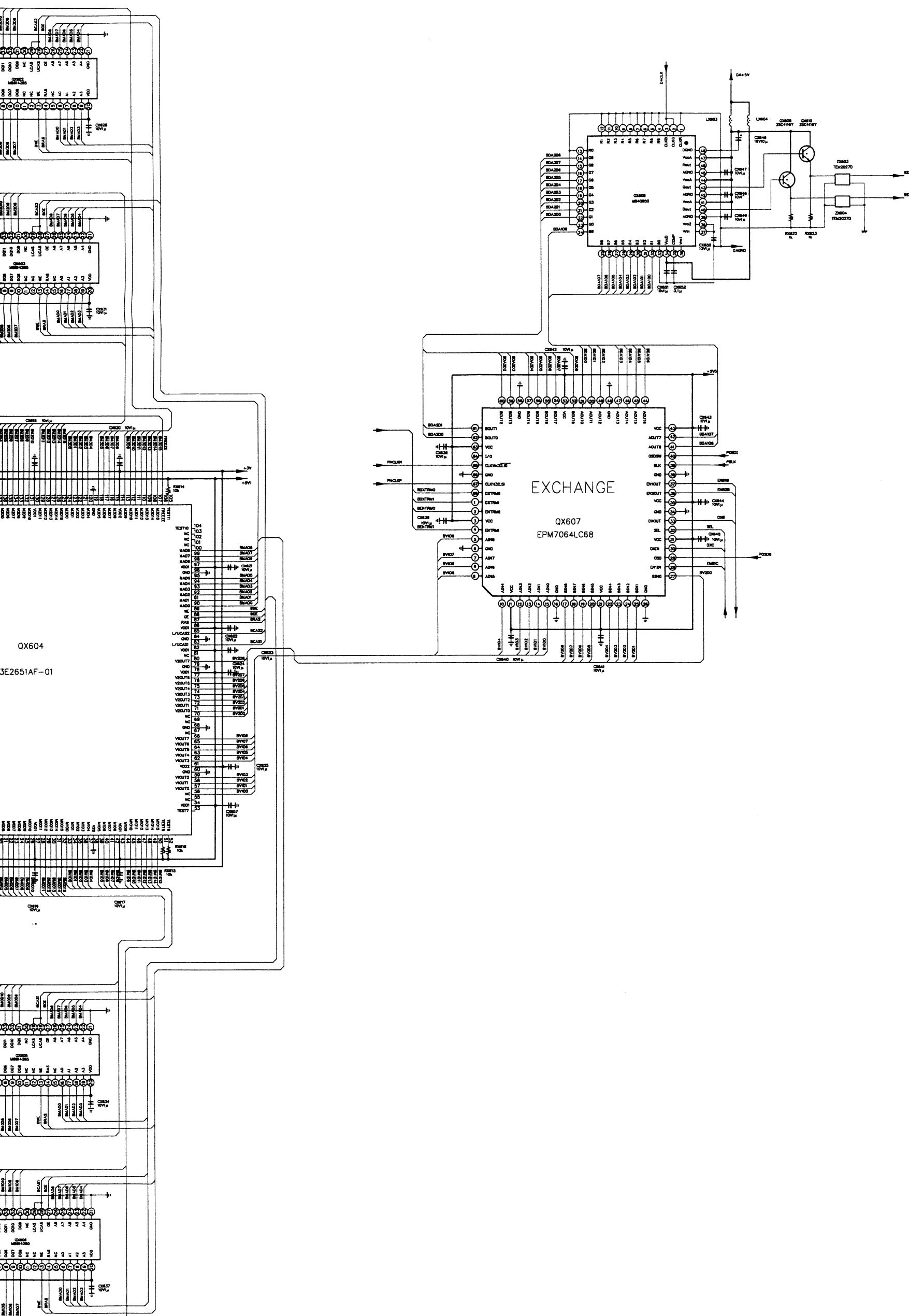


Fig. 4-5-1

4-6. Digital (Common) Circuit Diagram

A

B

C

D

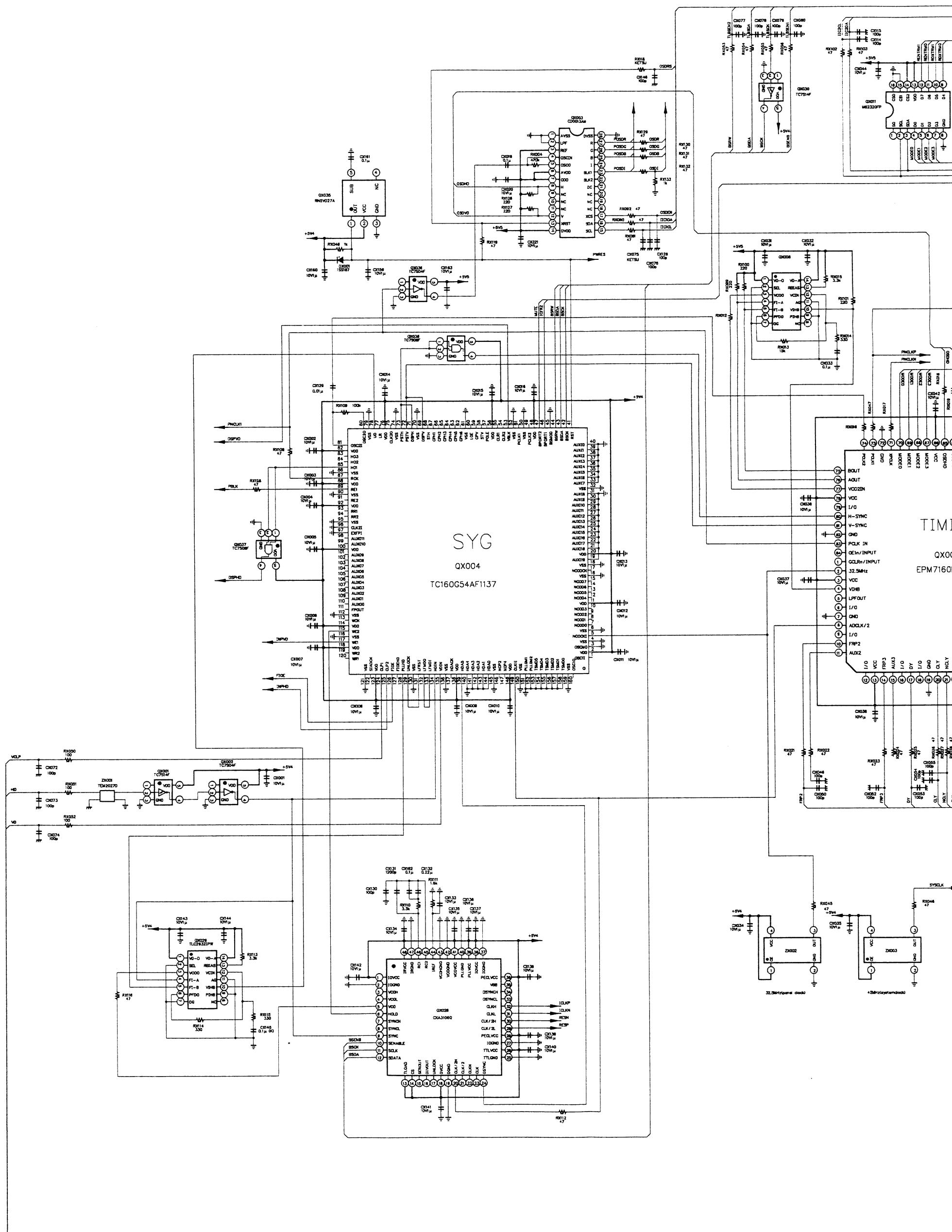
E

F

G

H

J



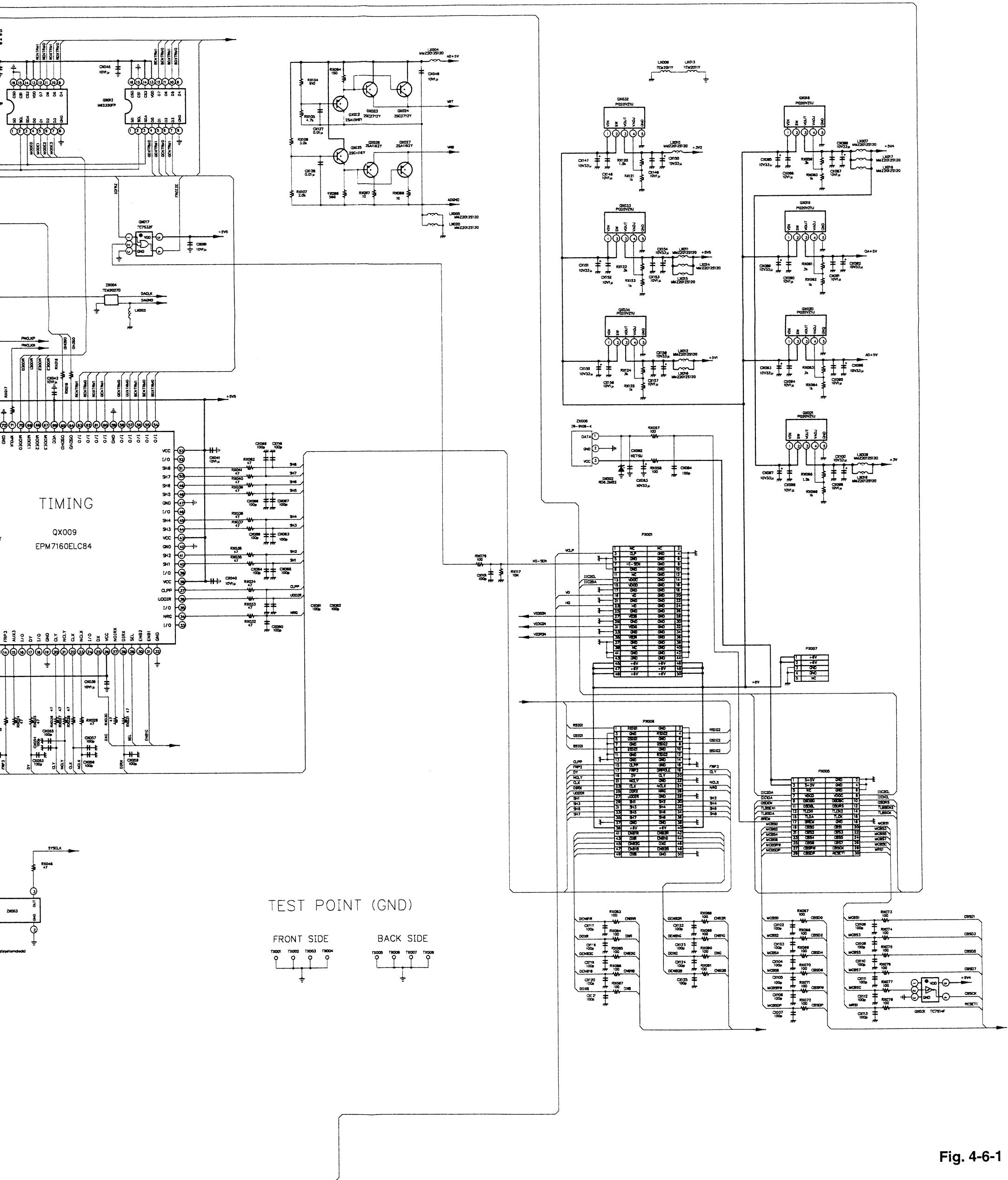
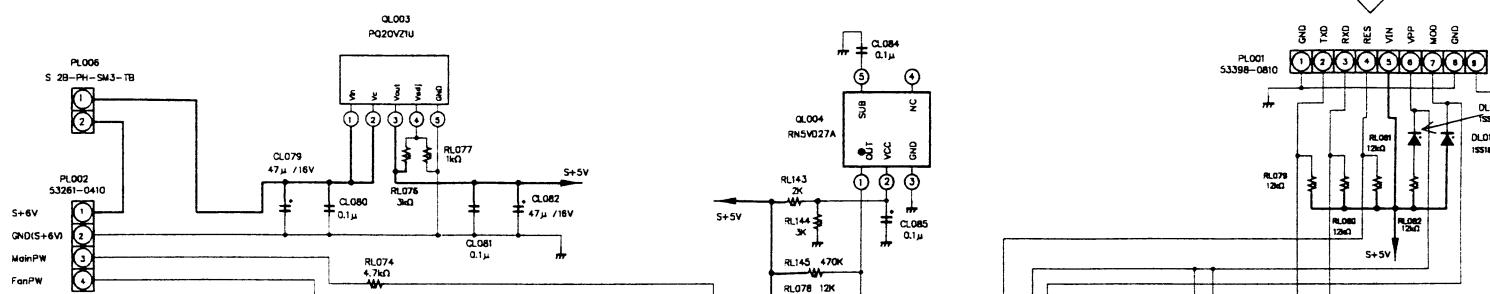


Fig. 4-6-1

1 2 3 4 5 6 7

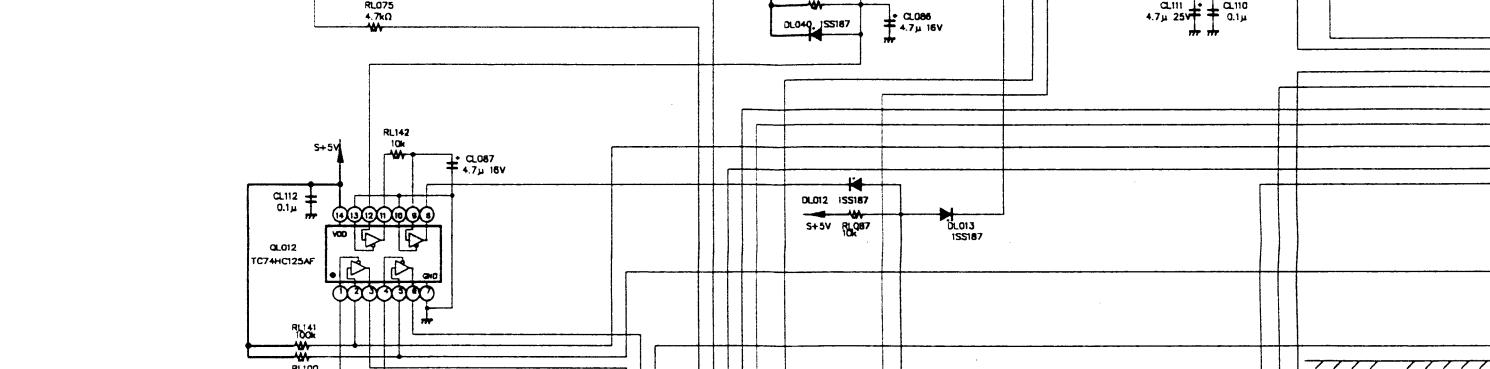
4-7. Microcomputer, F-REM Circuit Diagram

A

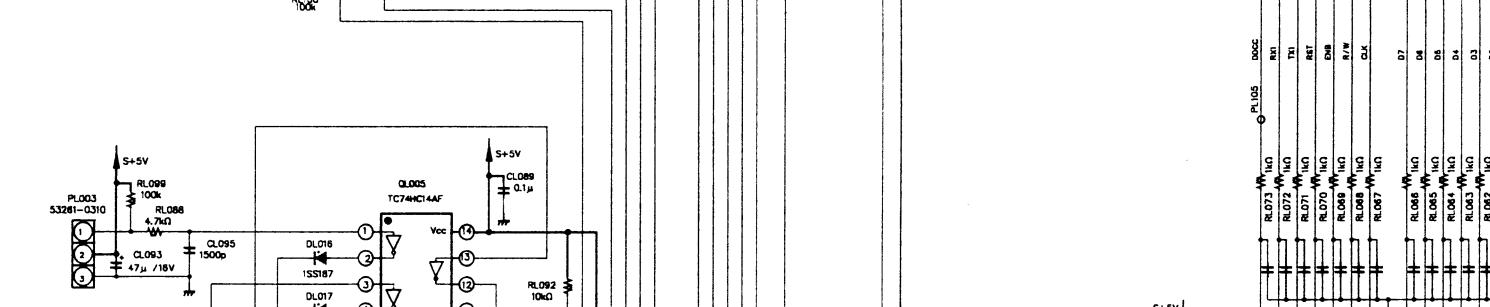


B

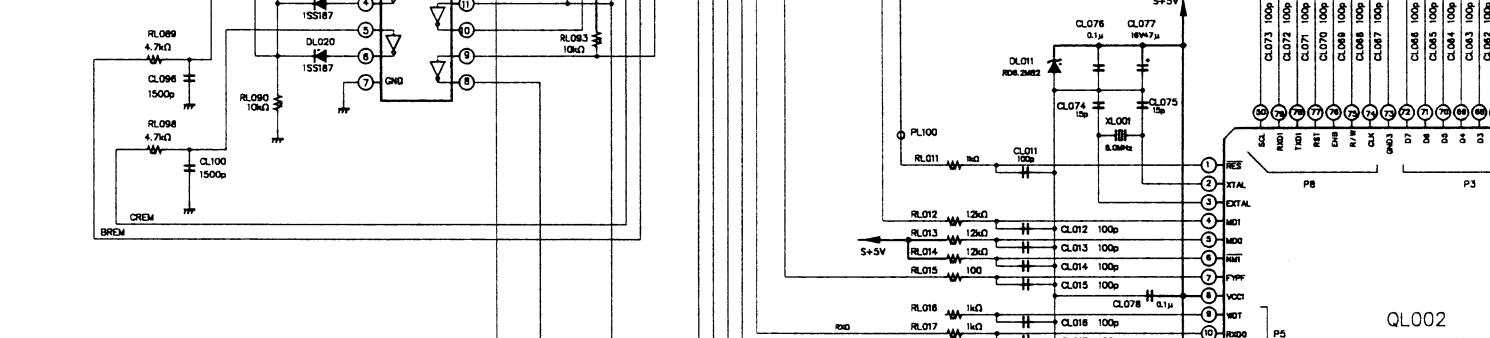
POWER →



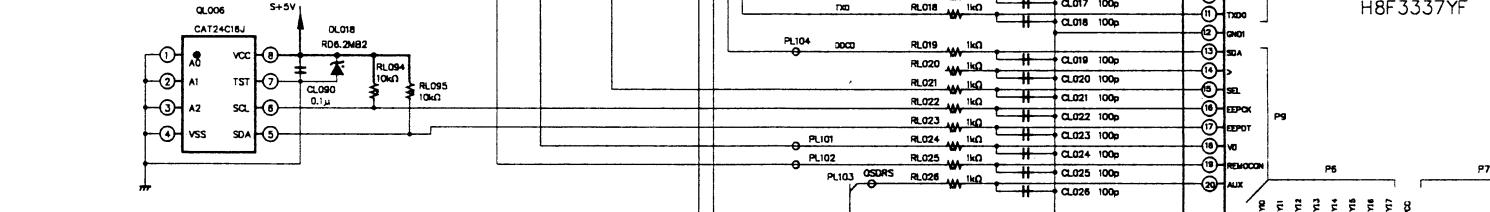
C



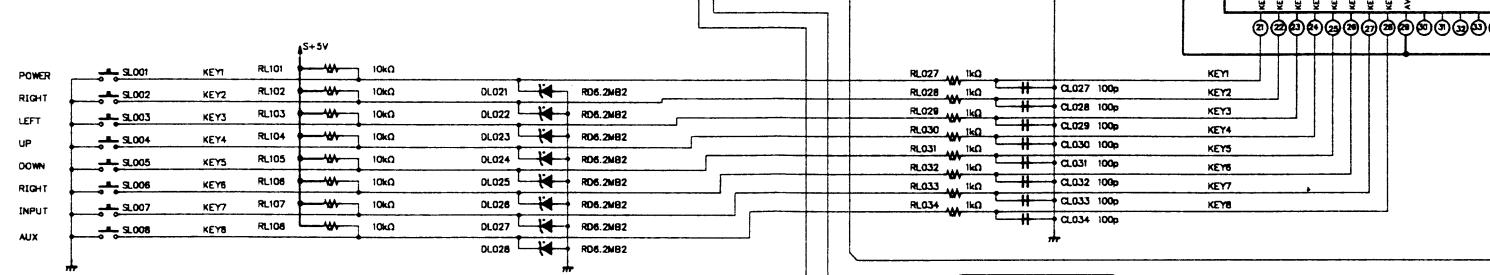
D



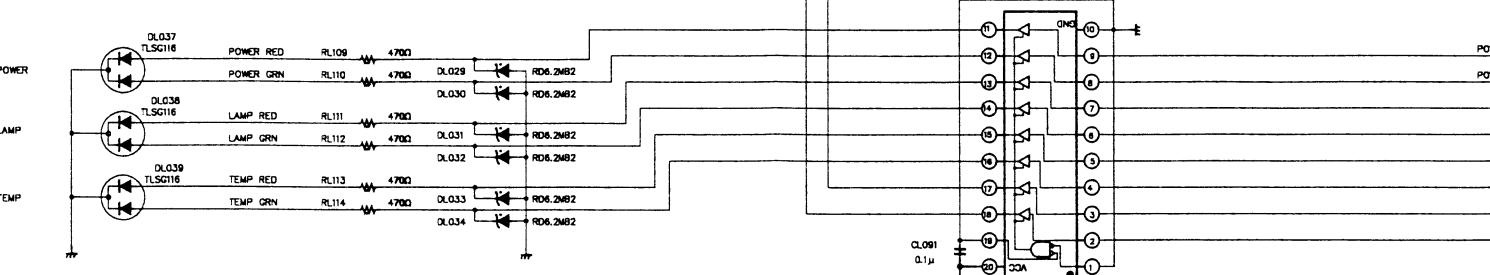
E



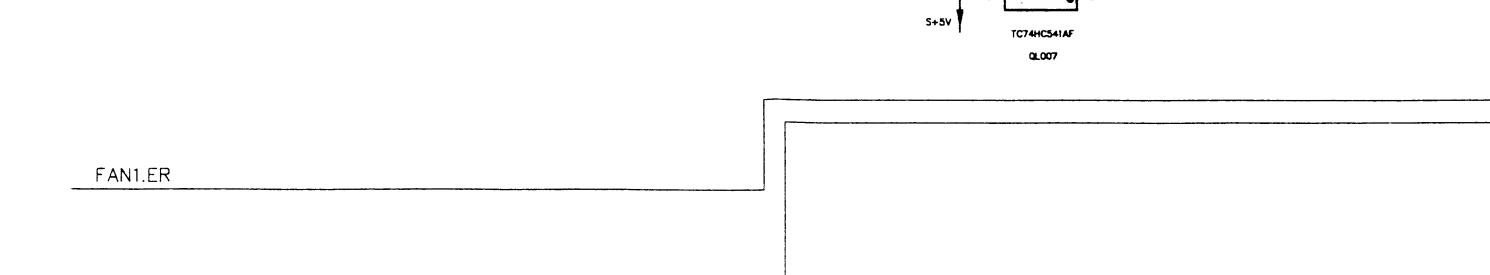
F



G



H

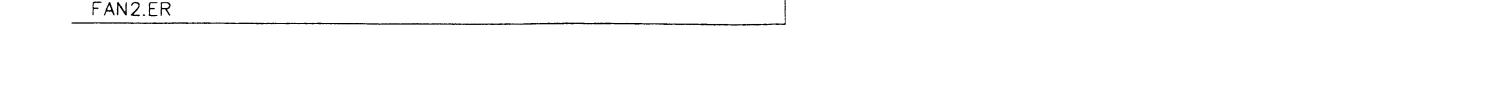


I



J

FAN CONTROL →



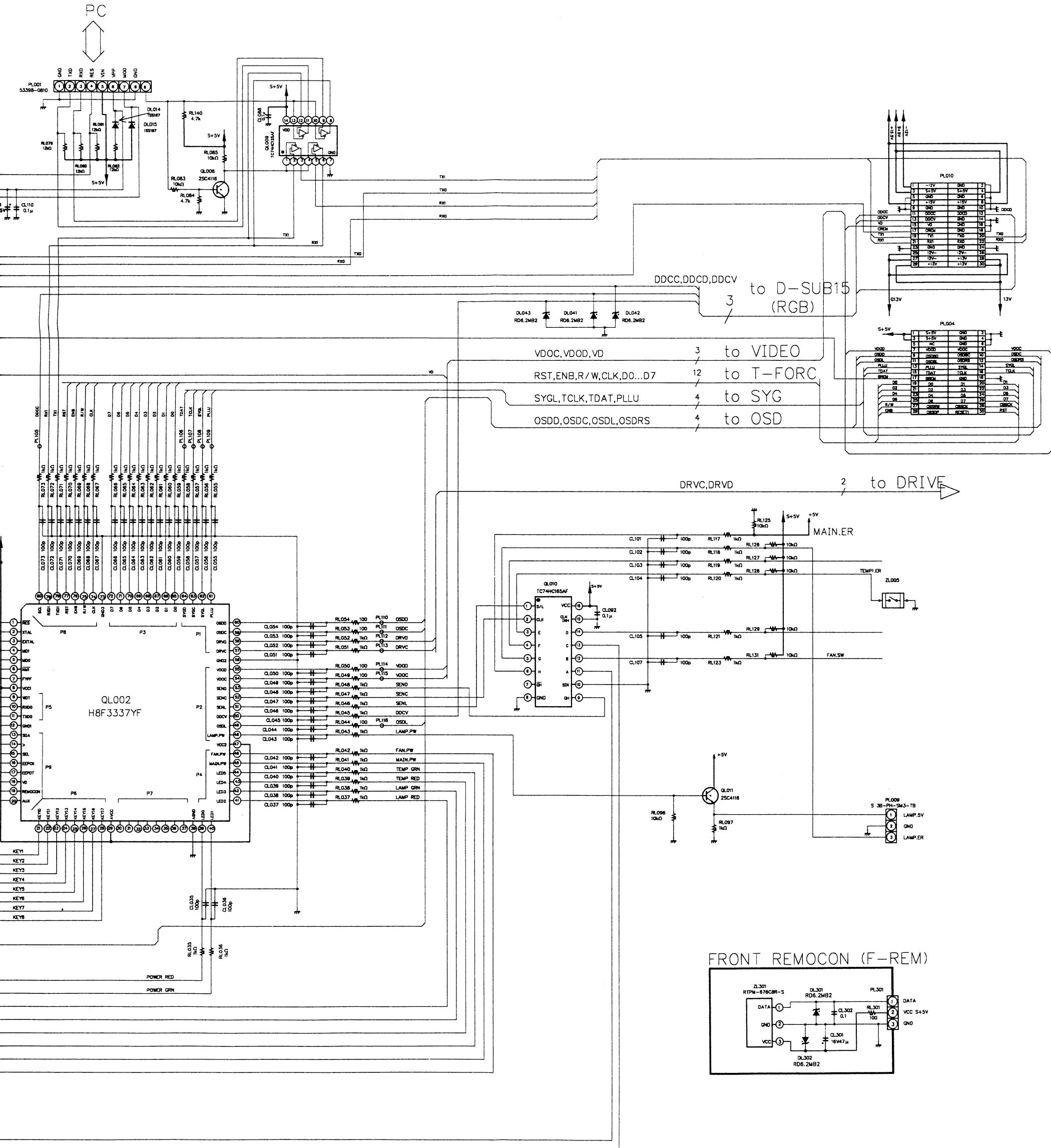


Fig. 4-7-1

1 2 3 4 5 6 7 8

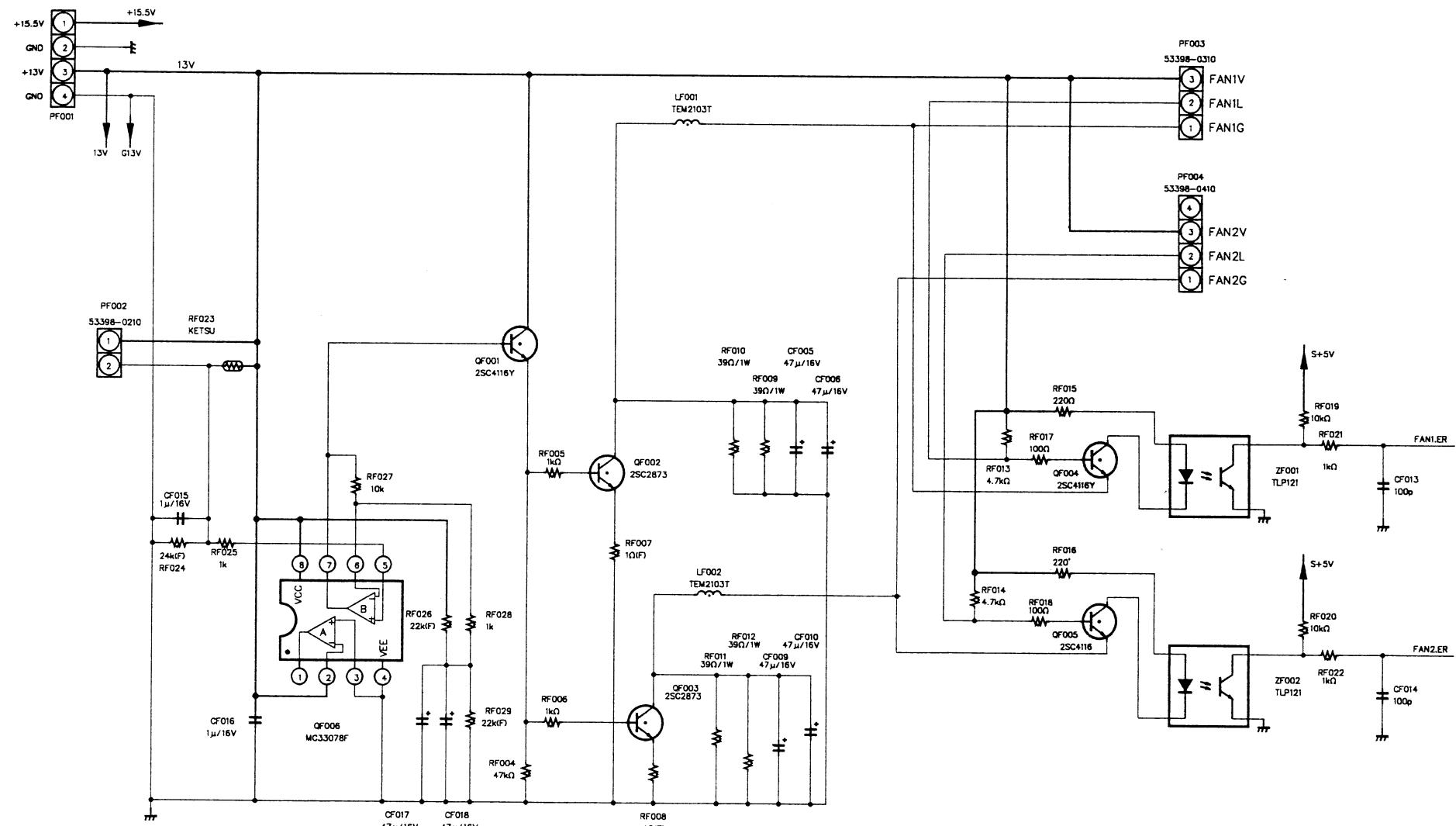
A

B

C

4-8. Fan Control Circuit Diagram

D



F

G

H

I

J

Fig. 4-8-1

4-9. Inverter Circuit Diagram (TLP511U/E)

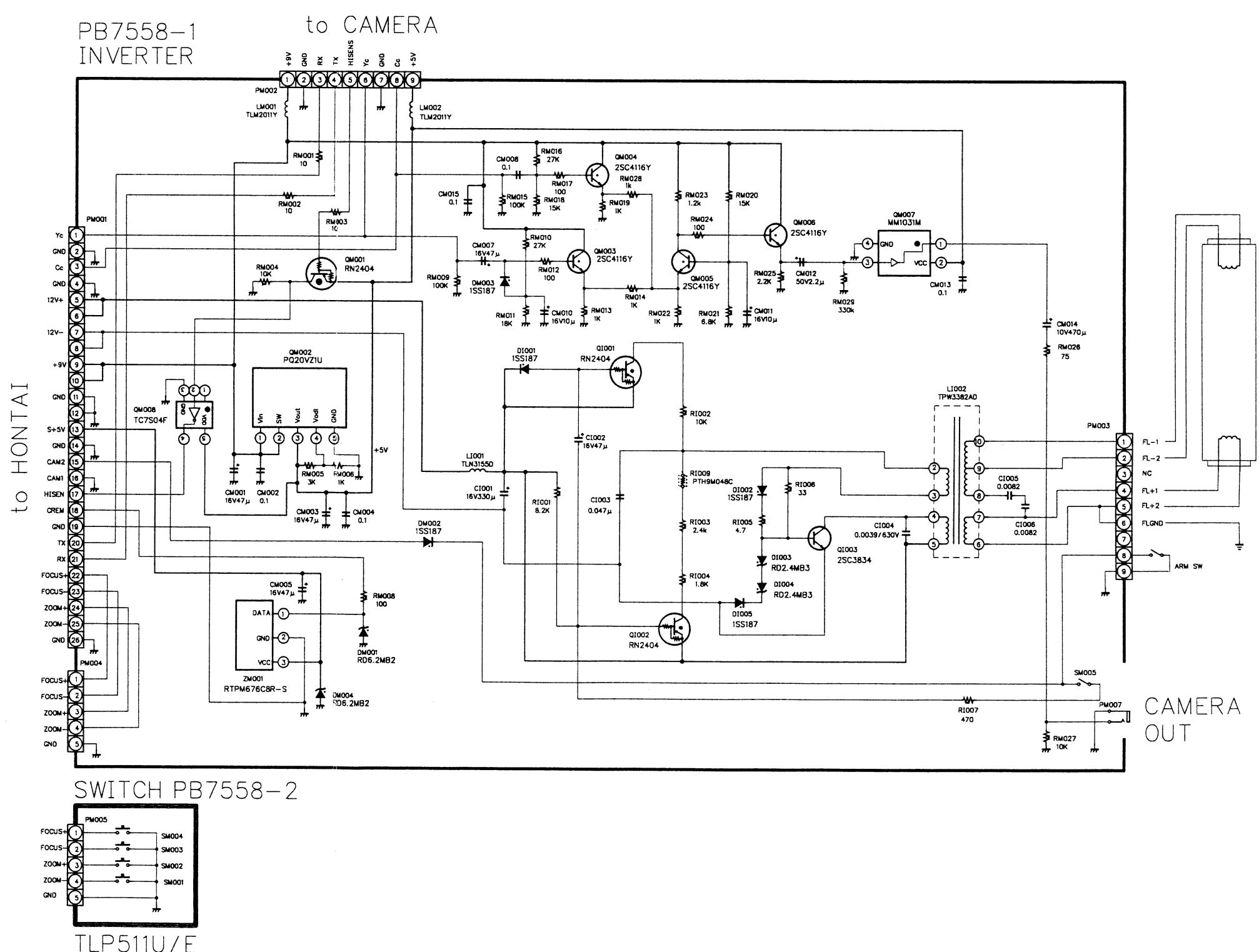
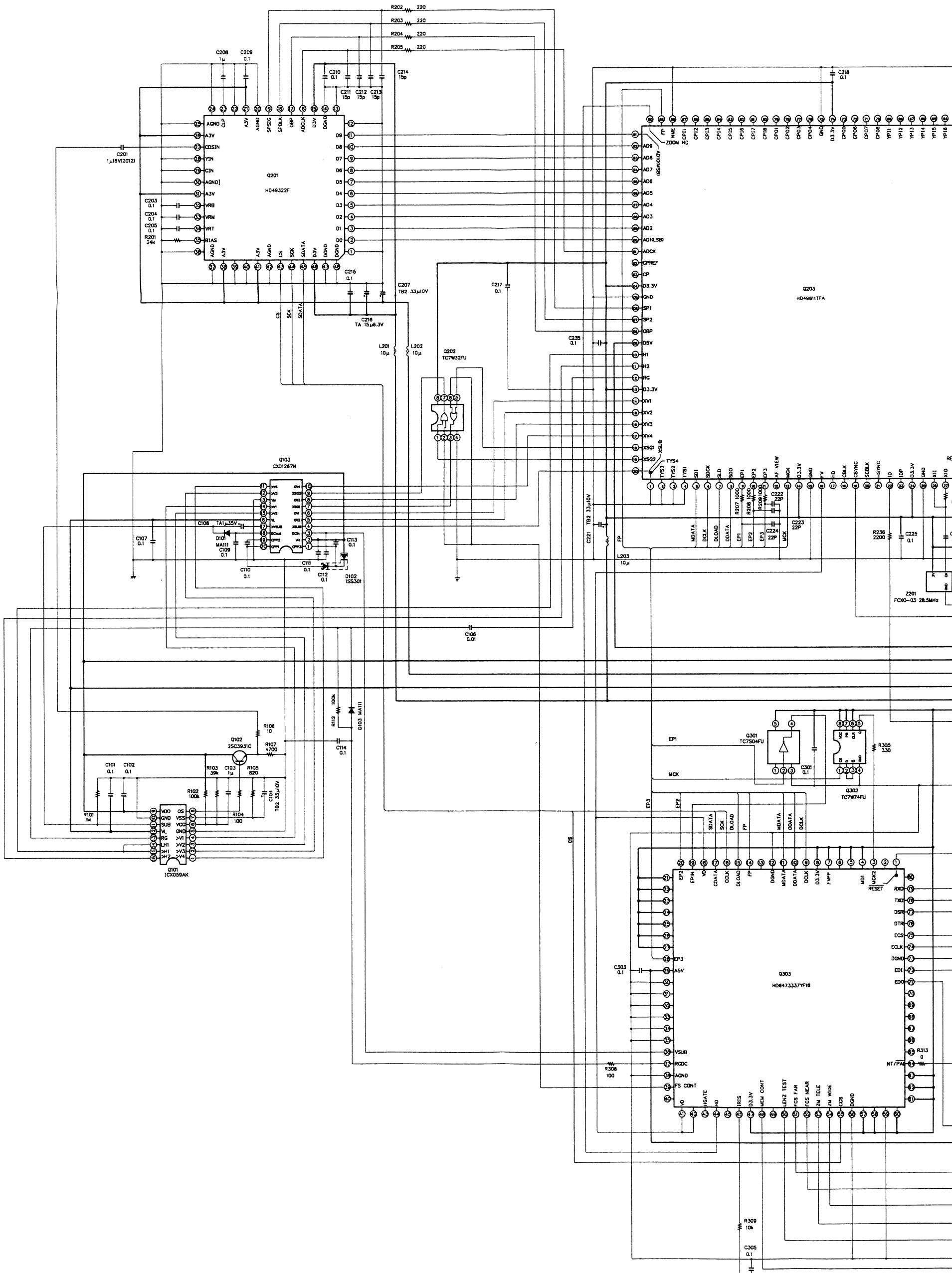
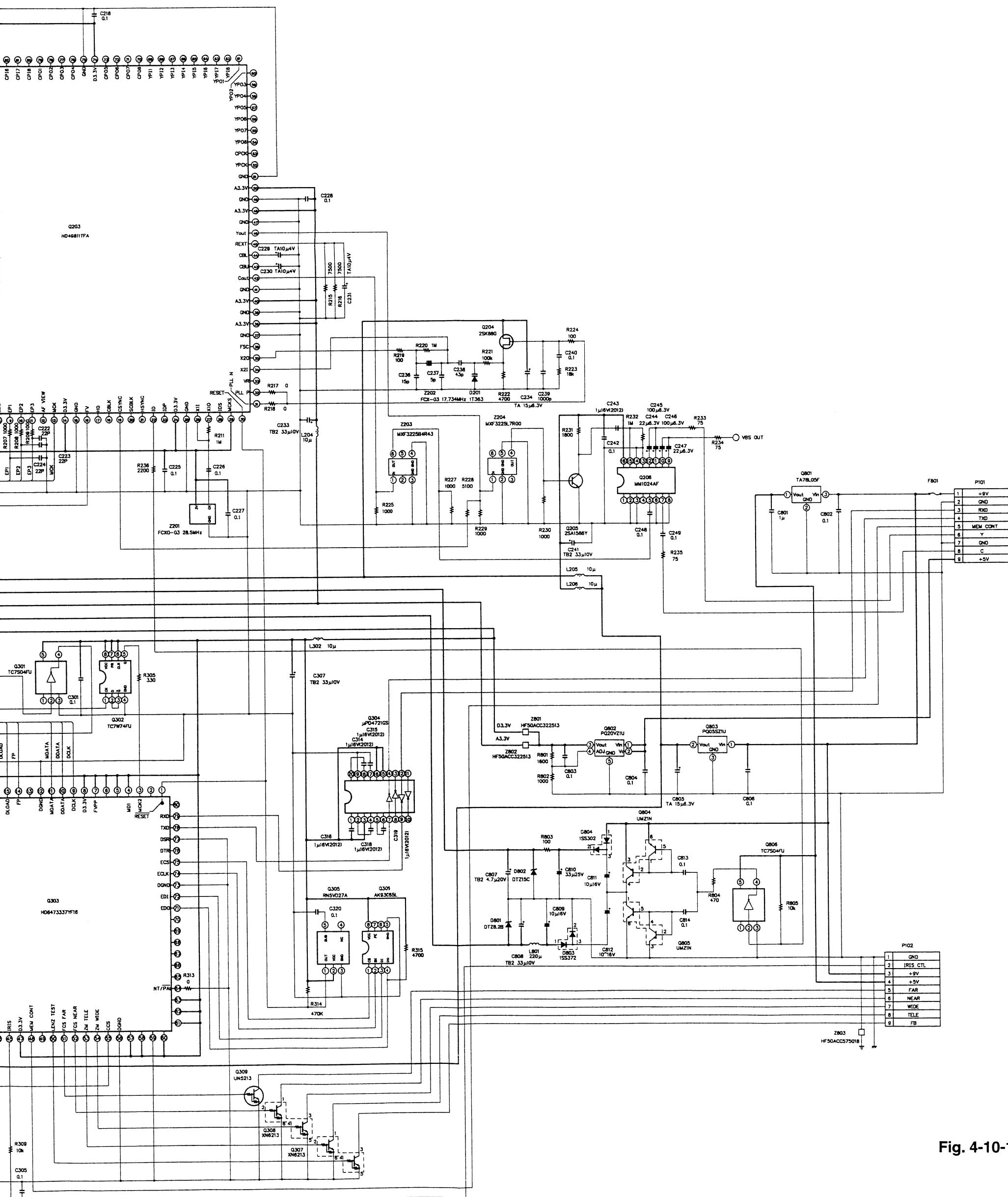


Fig. 4-9-1

4-10. Camera Circuit Diagram (TLP511U/E)





5. PC BOARDS

5-1. Drive PC Board

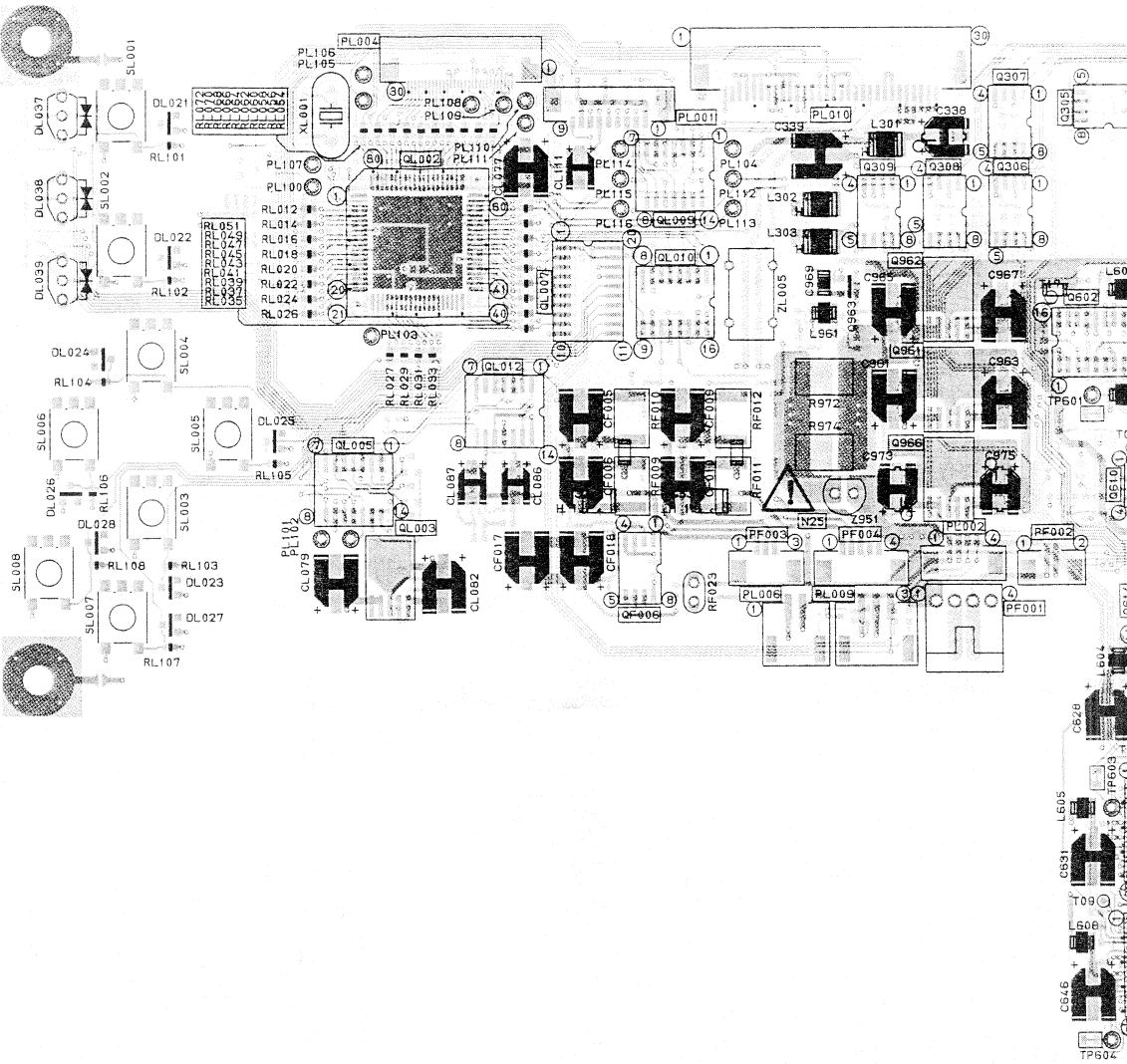


Fig. 5-1-1 U0011 Drive P

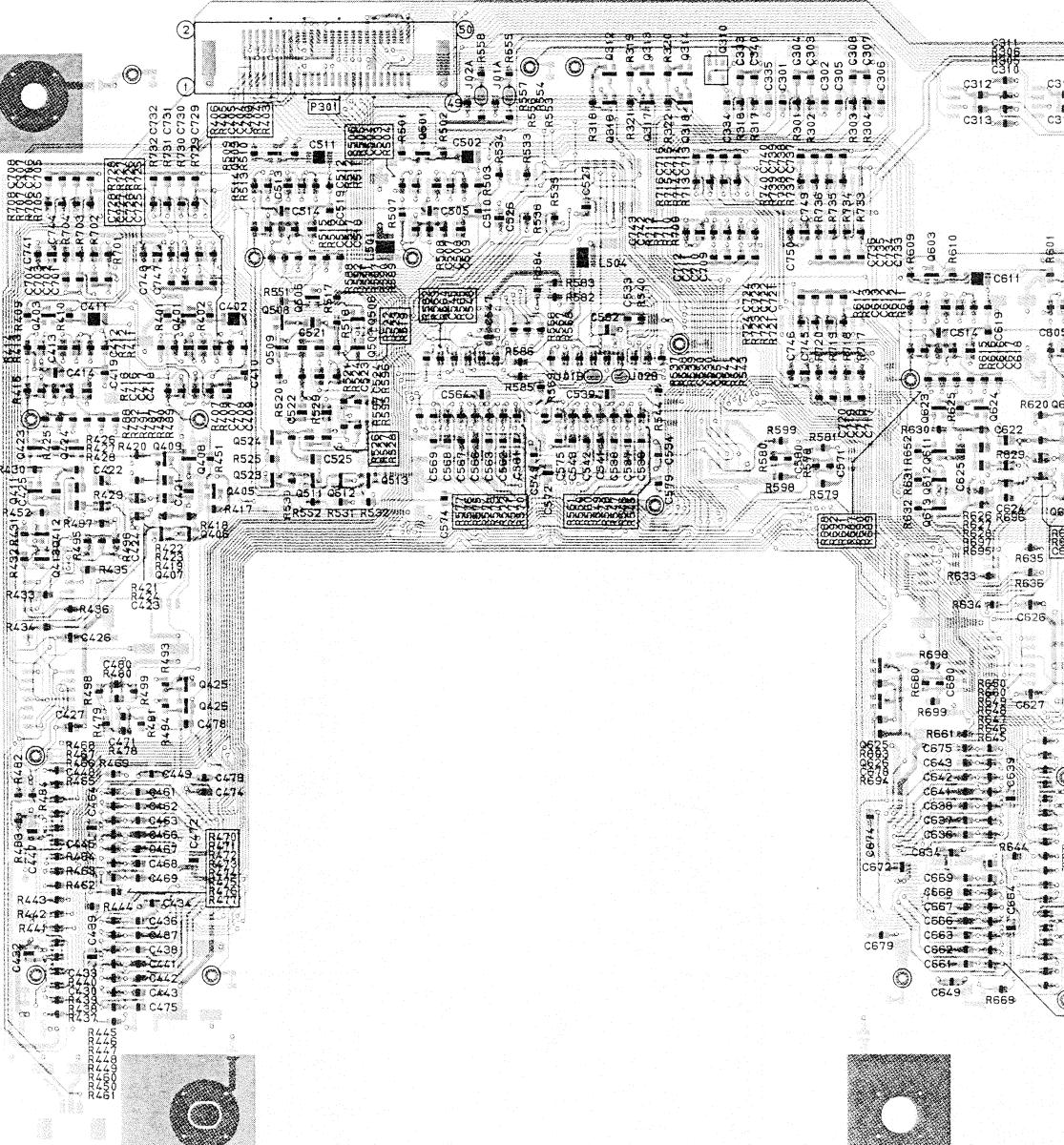
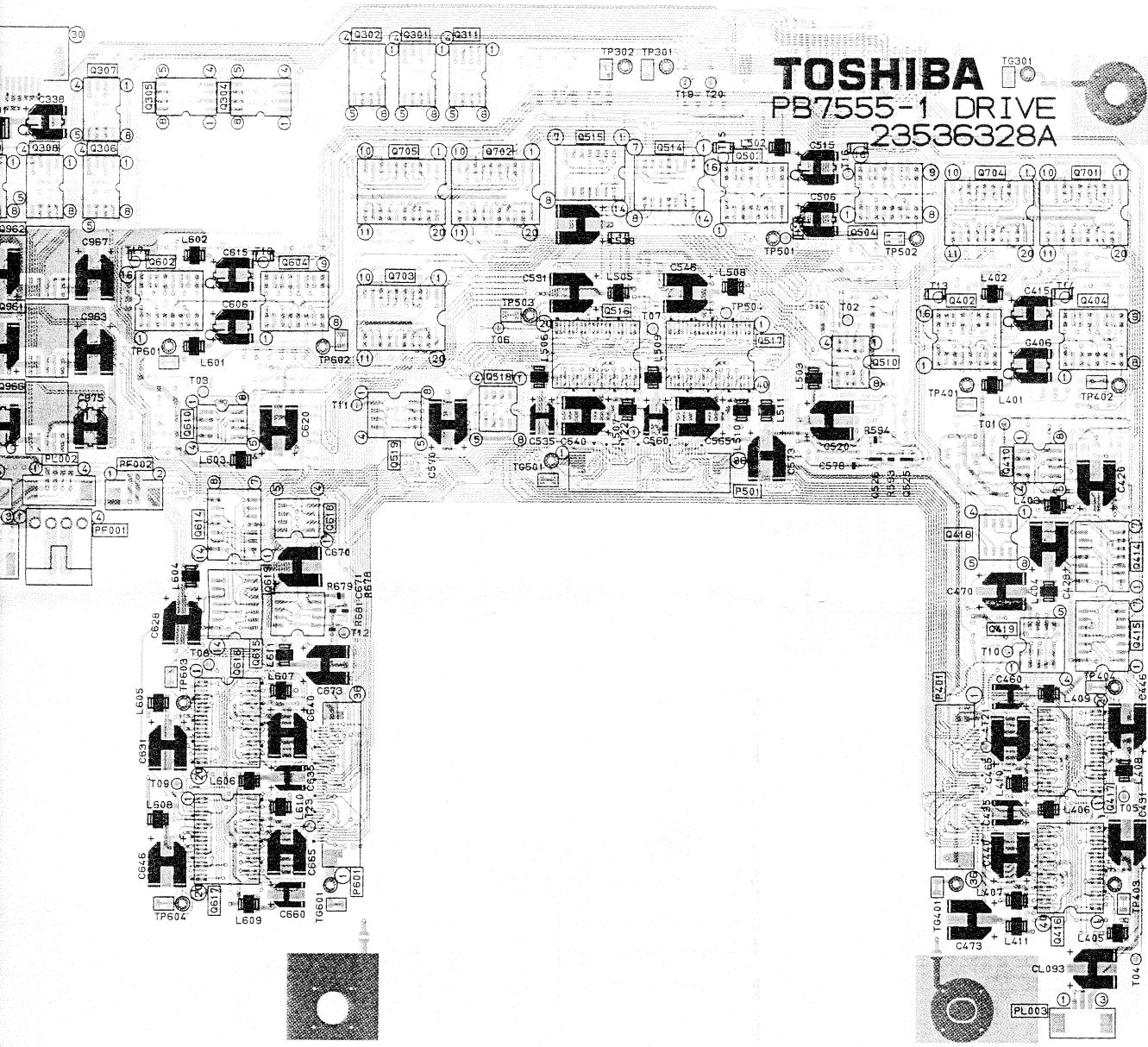
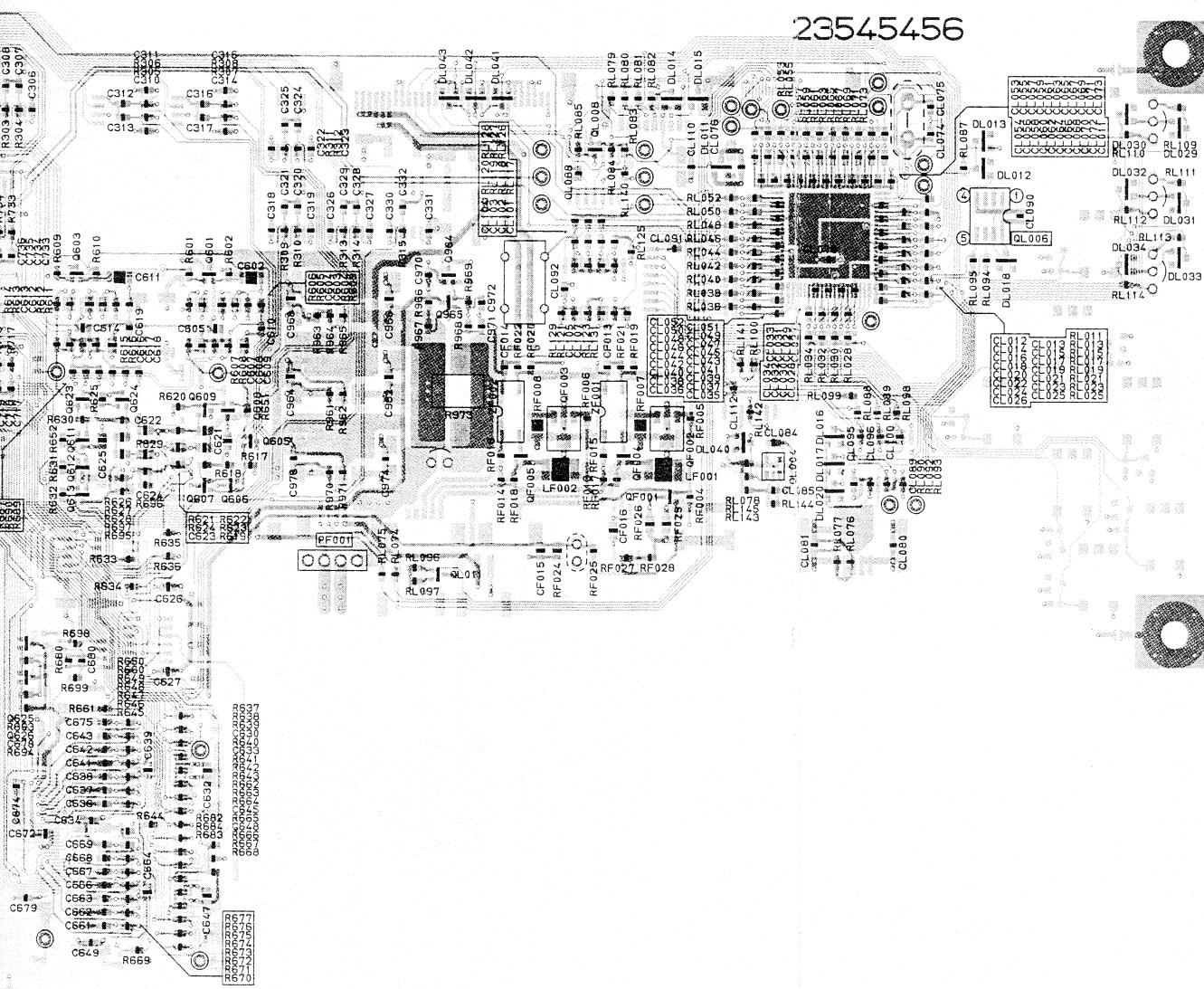


Fig. 5-1-2 U0011 Drive P



-1-1 U0011 Drive PC Board (Top Side)



-1-2 U0011 Drive PC Board (Bottom Side)

5-2. Digital PC Board

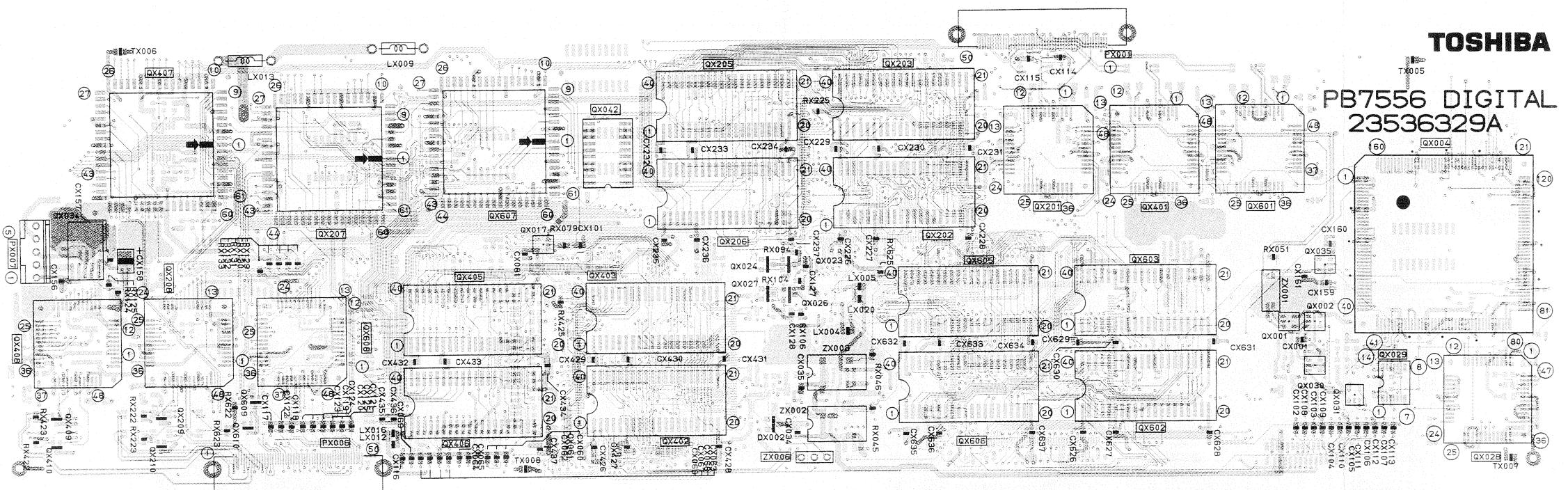


Fig. 5-2-1 U002 Digital PC Board (Top Side)

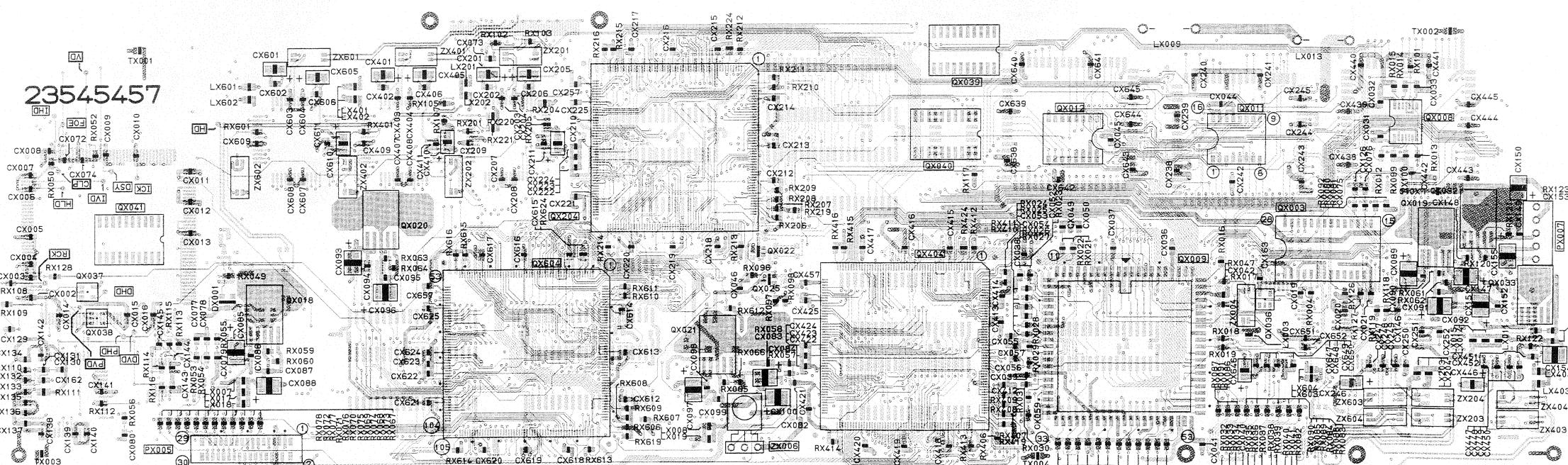


Fig. 5-2-2 U002 Digital PC Board (Bottom Side)

5-3. Video PC Board

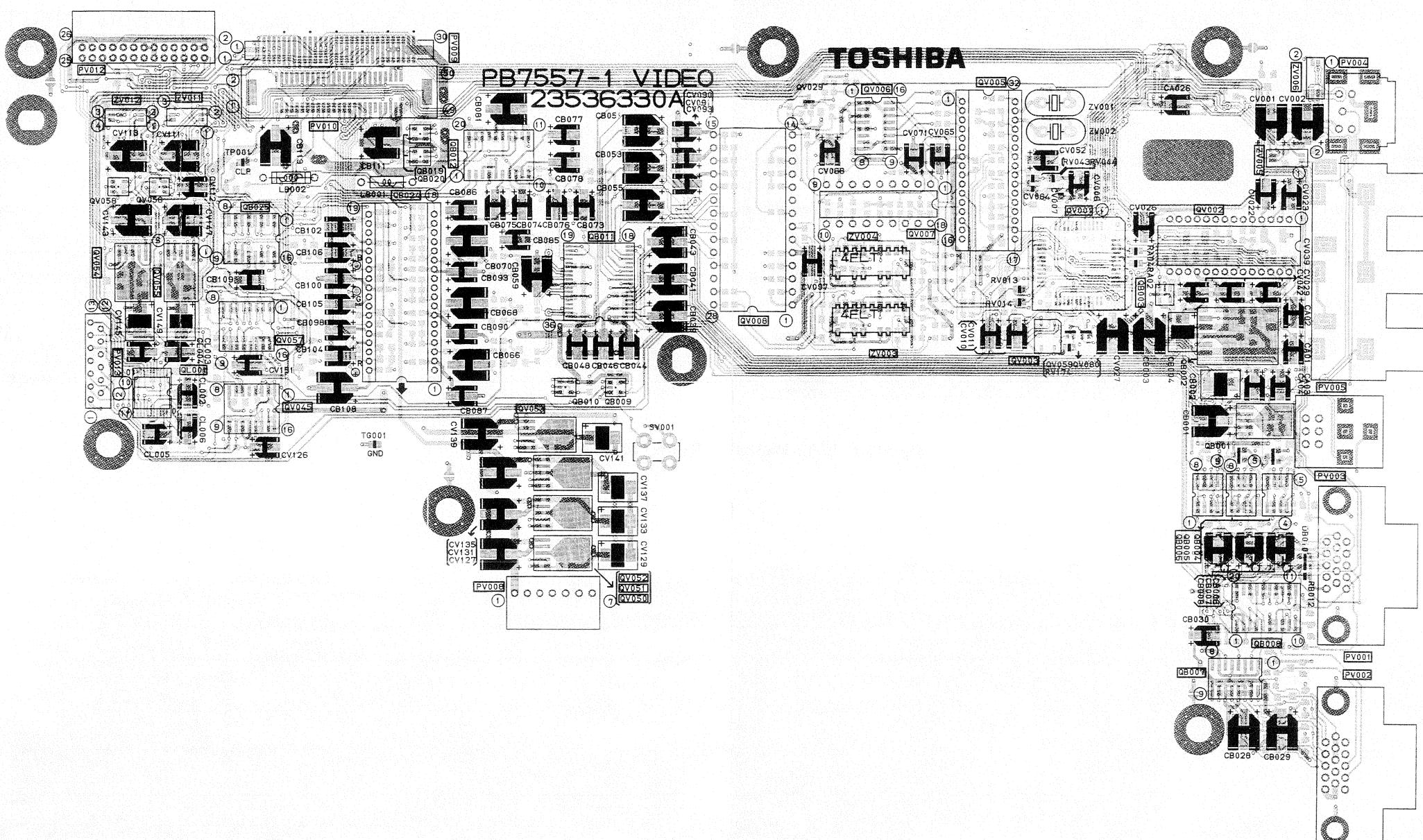


Fig. 5-3-1 U0031 Video PC Board (Top Side)

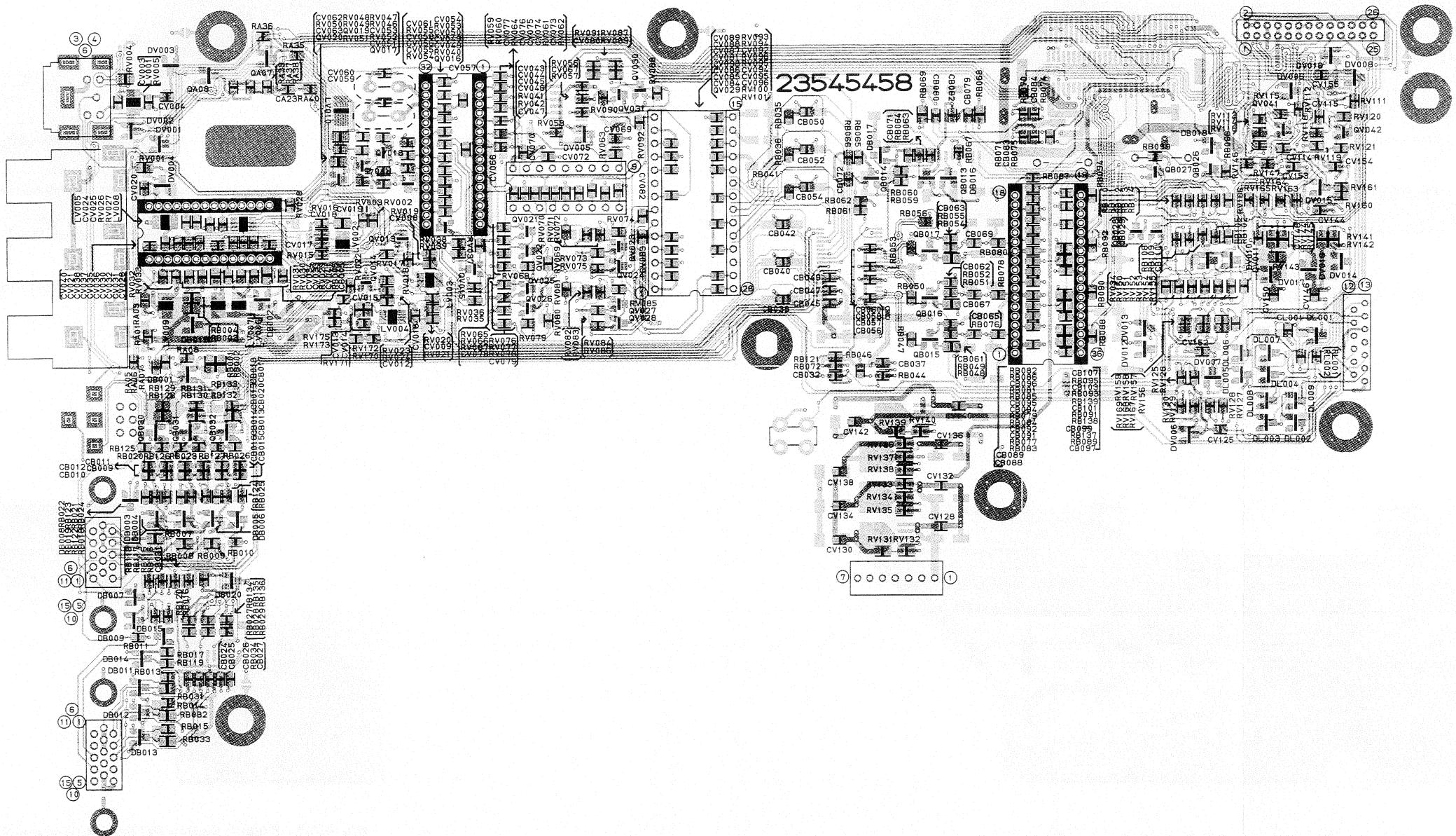


Fig. 5-3-2 U0031 Video PC Board (Bottom Side)

5-4. Inverter PC Board (TLP511U/E)

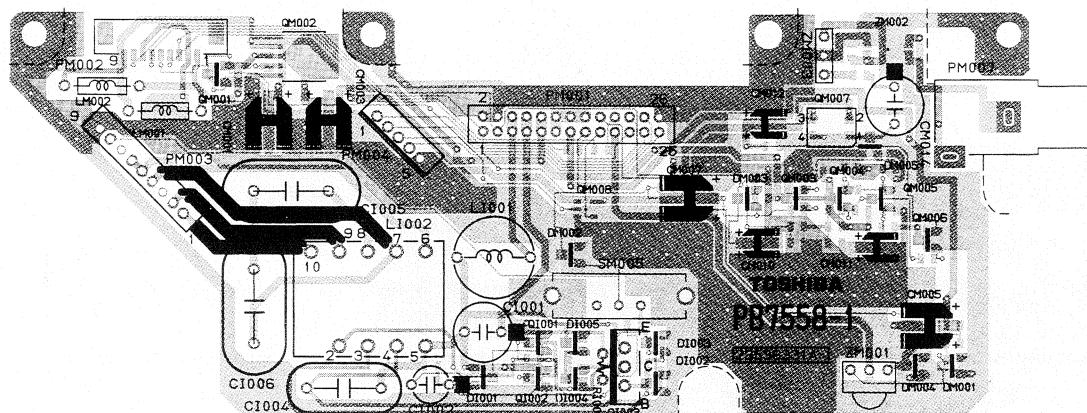


Fig. 5-4-1 U0041 Inverter PC Board (Top Side)

5-5. Switch PC Board (TLP511U/E)

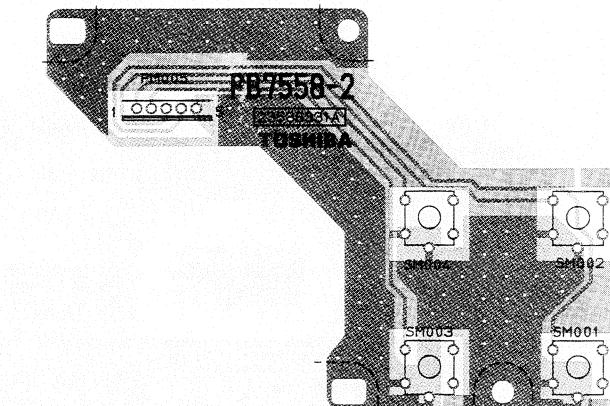


Fig. 5-5-1 U0042 Switch PC Board (Top Side)

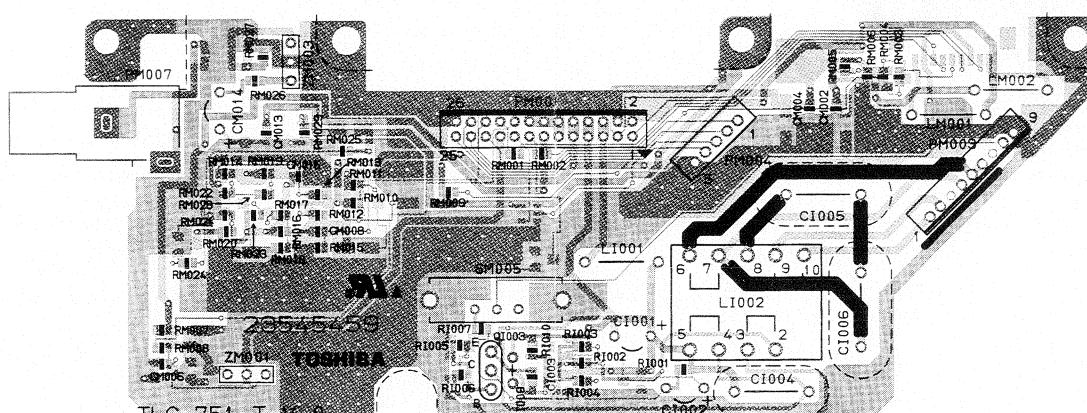


Fig. 5-4-2 U0041 Inverter PC Board (Bottom Side)

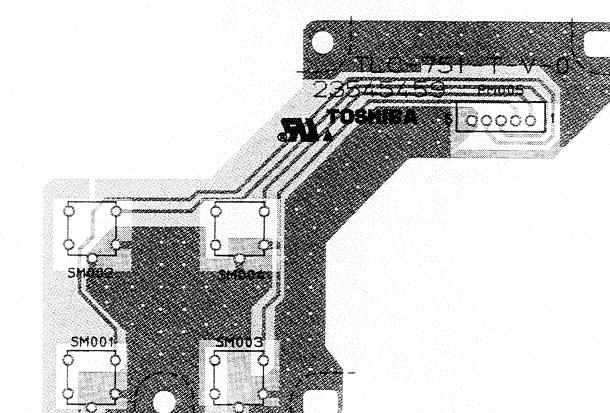


Fig. 5-5-2 U0042 Switch PC Board (Bottom Side)

5-6. Audio PC Board

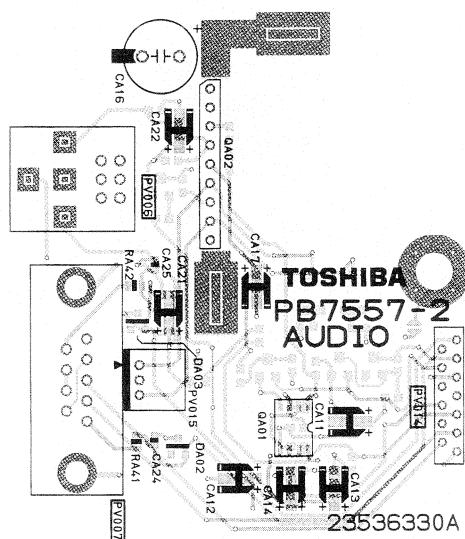


Fig. 5-6-1 U0032 Audio PC Board (Top Side)

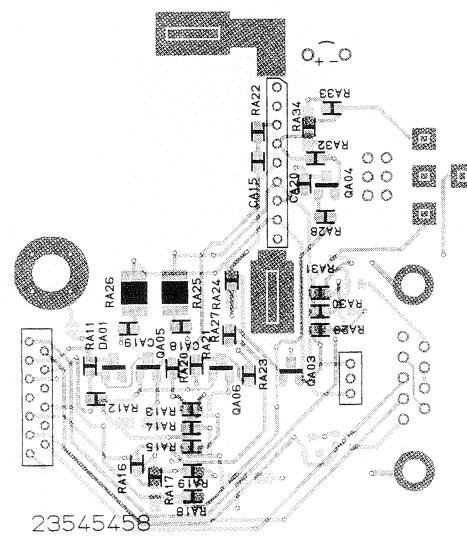


Fig. 5-6-2 U0032 Audio PC Board (Bottom Side)

5-7. Camera PC Board (TLP511U/E)

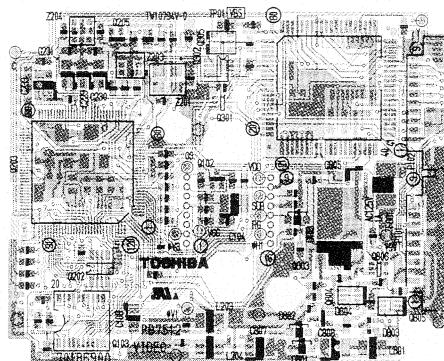


Fig. 5-7-1 U501 Camera PC Board (Top Side)

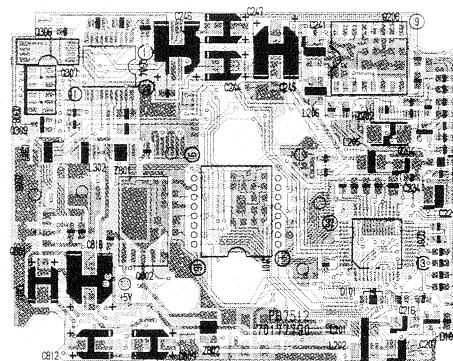


Fig. 5-7-2 U501 Camera PC Board (Bottom Side)

5-8. F-REM PC Board

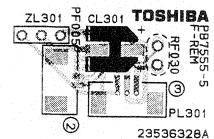


Fig. 5-8-1 U0015 F-REM PC Board (Top Side)

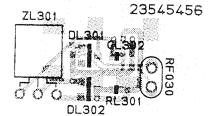


Fig. 5-8-2 U0015 F-REM PC Board (Bottom Side)

SECTION 3

PARTS LIST

SAFETY PRECAUTION

The parts identified by Δ mark are critical for safety. Replace only with part number specified.

The mounting position of replacement is to be identical with originals.

The substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

NOTICE

The part number must be used when ordering parts in order to assist in processing, be sure to include the model number and description.

Parts marked # are of chip type and mounted on original PC boards.

However, when they are placed for servicing works, use discrete parts listed on the parts list.

ABBREVIATIONS

1. Integrated circuit (IC)
2. Capacitor (Cap)
 - Capacitance Tolerance (for Nominal Capacitance more than 10pF)

Table 2-0-1

Symbol	B	C	D	F	G	J	K	M	N
Tolerance %	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10	± 20	± 30
Symbol	P	Q	T	U	V	W	X	Y	Z
Tolerance %	+ 100 0	+ 30 - 10	+ 50 - 10	+ 75 - 10	+ 20 - 10	+ 100 - 10	+ 40 - 20	+ 150 - 10	+ 80 - 20

Ex. $10\mu F J = 10\mu F \pm 5\%$

- Capacitance Tolerance (for Nominal Capacitance 10pF or less)

Table 2-0-2

Symbol	B	C	D	F	G
Tolerance pF	± 0.1	± 0.25	± 0.5	± 1	± 2

Ex. $10pF G = 10pF \pm 2pF$

3. Resistor (Res)

- Resistance tolerance

Table 3-0-1

Symbol	B	C	D	F	G	J	K	M
Tolerance %	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10	± 20

Ex. $470\Omega J = 470\Omega \pm 5\%$

4. EXPLODED VIEWS

4-1. Packing Assembly

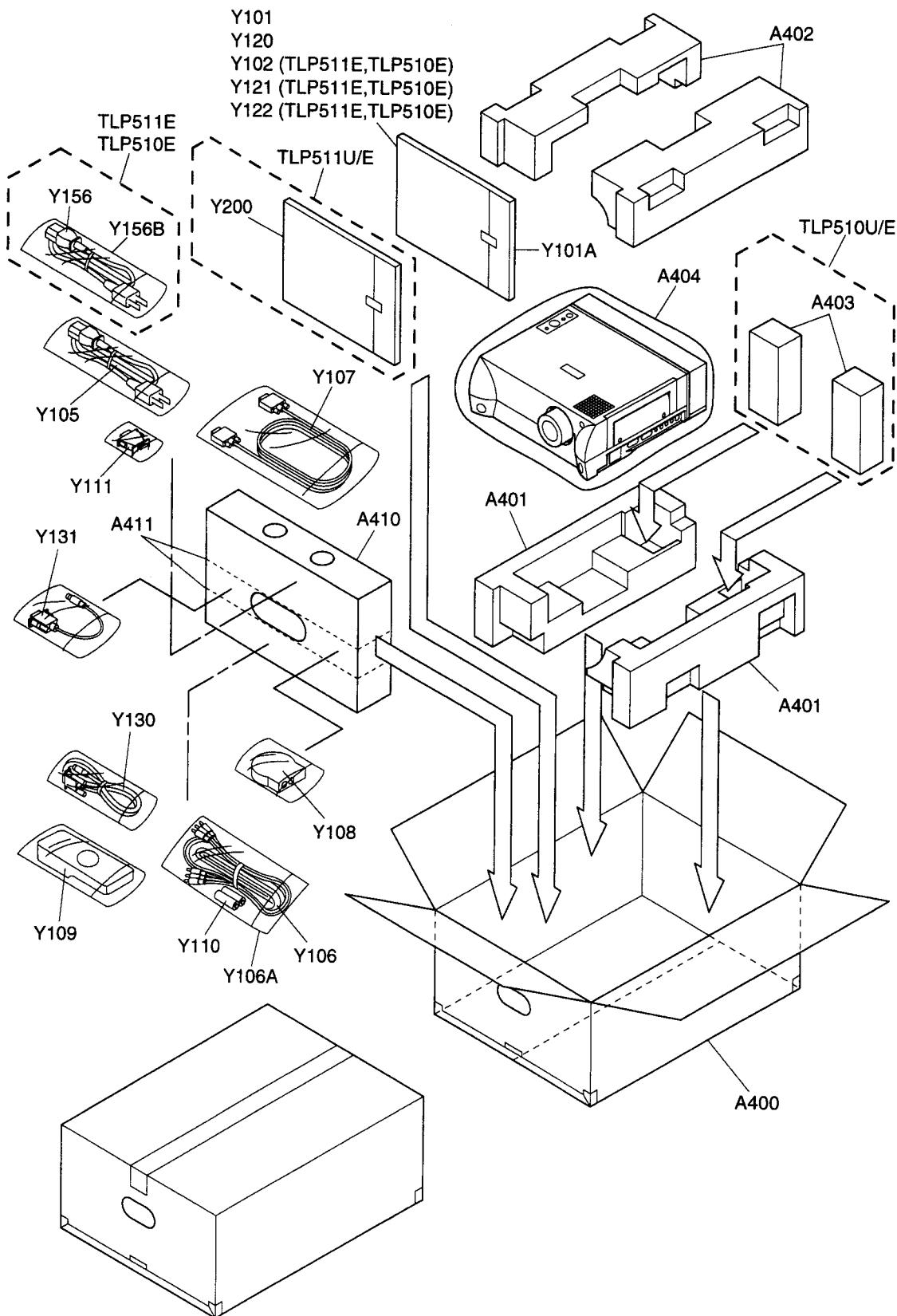


Fig. 4-1-1

4-2. Remote Control Unit

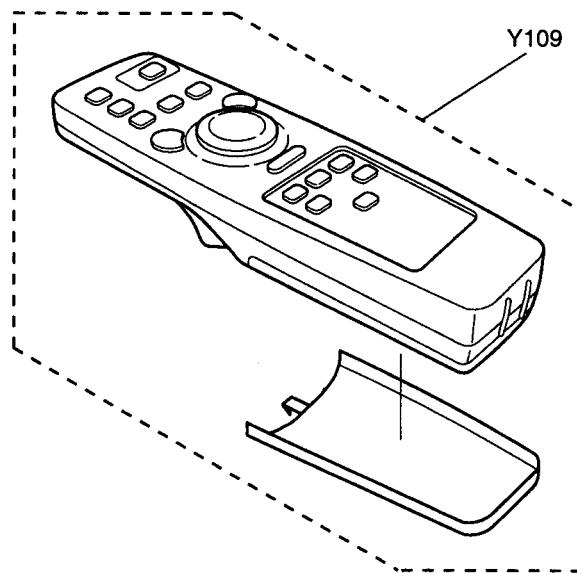


Fig. 4-2-1

4-3. Label Position

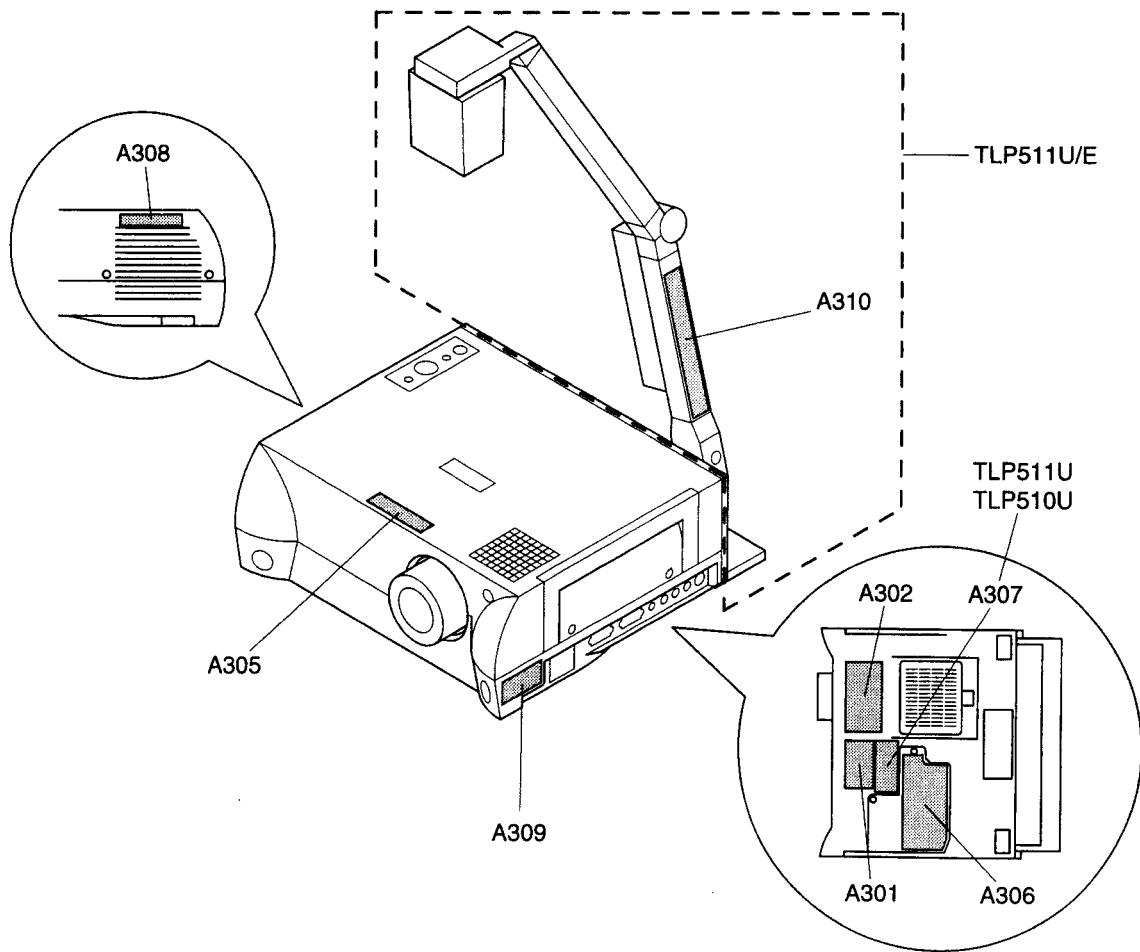


Fig. 4-3-1

4-4. Chassis Assembly

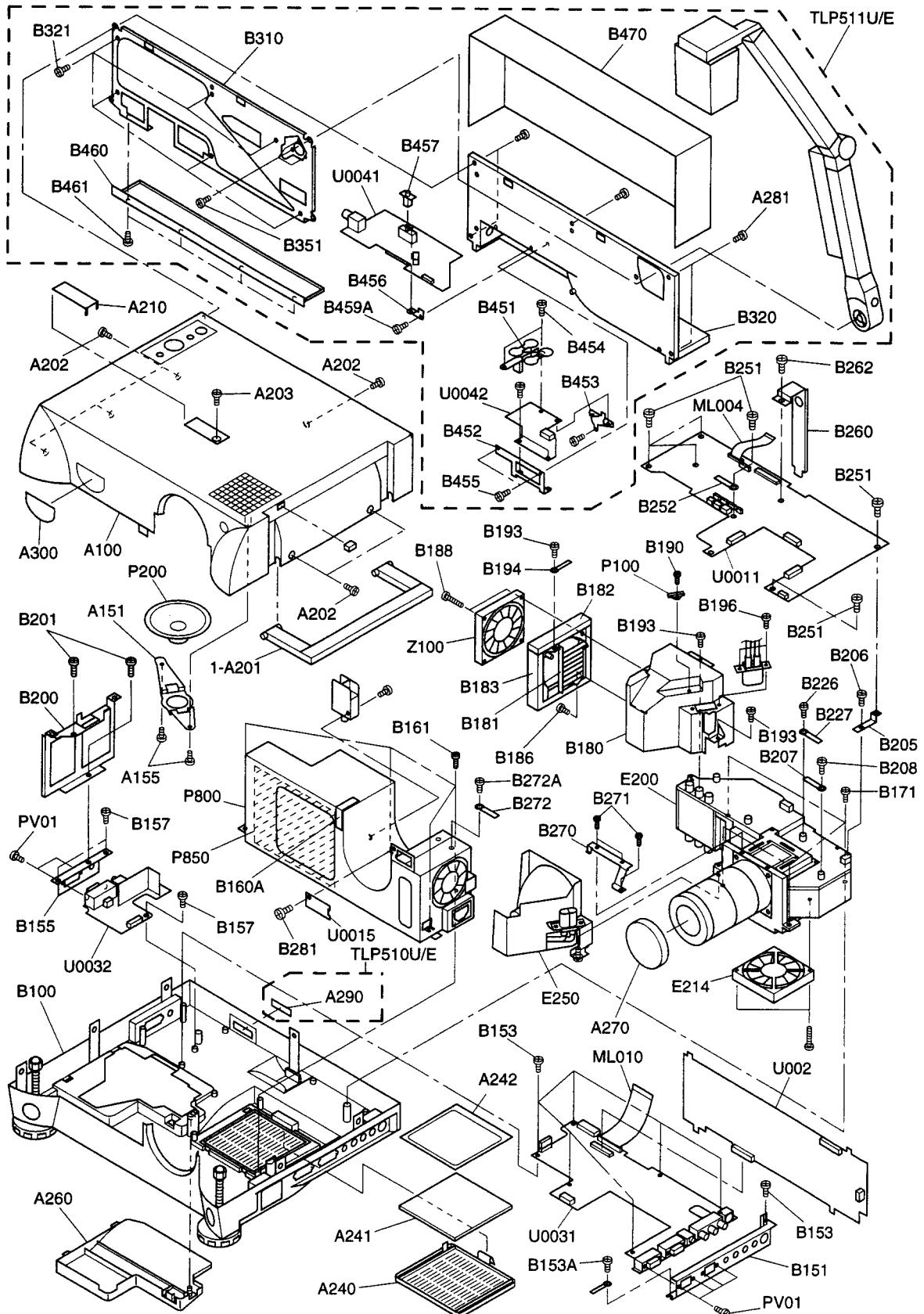


Fig. 4-4-1

4-5. Optical Box Assembly

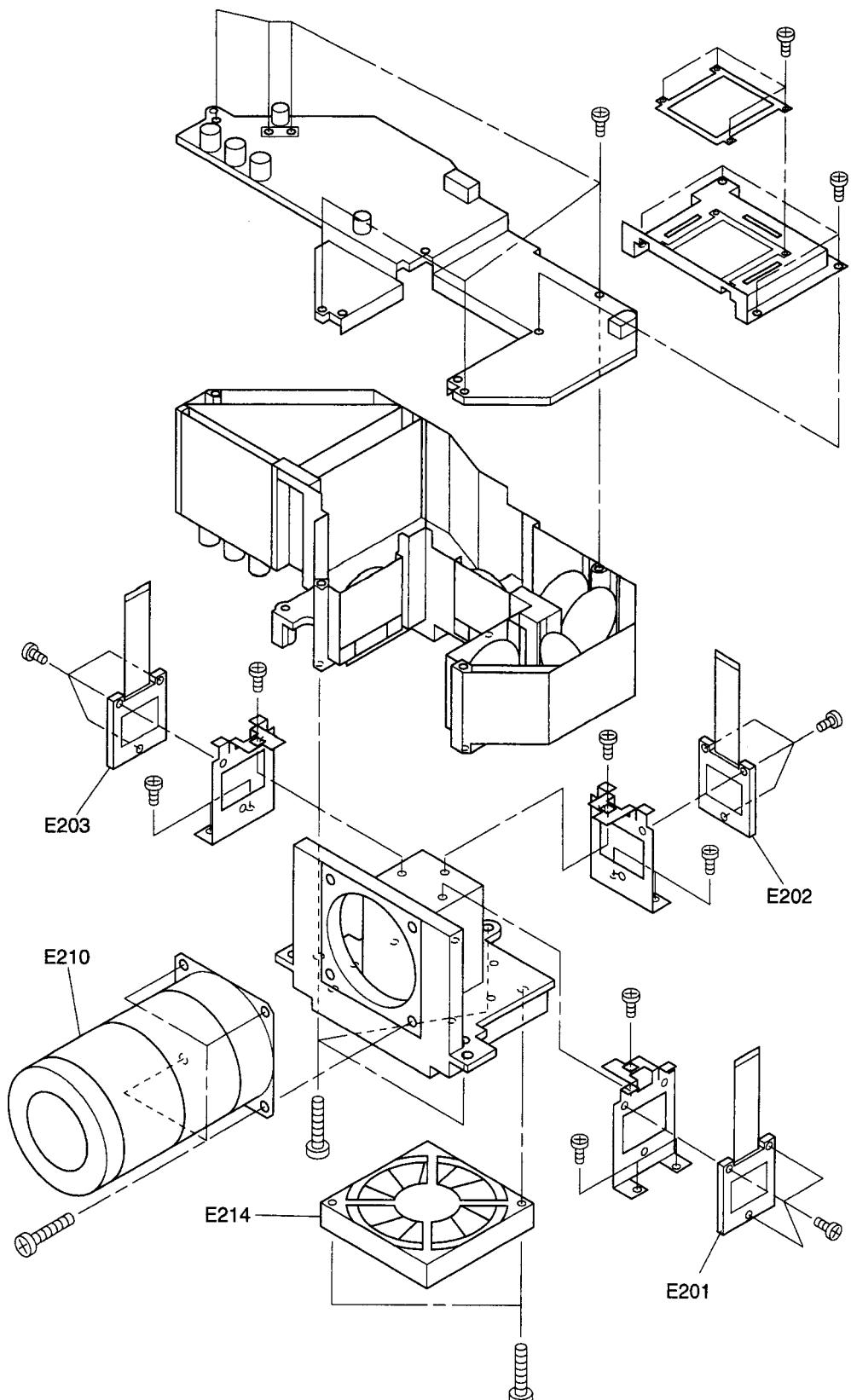


Fig. 4-5-1

4-6. Arm Assembly

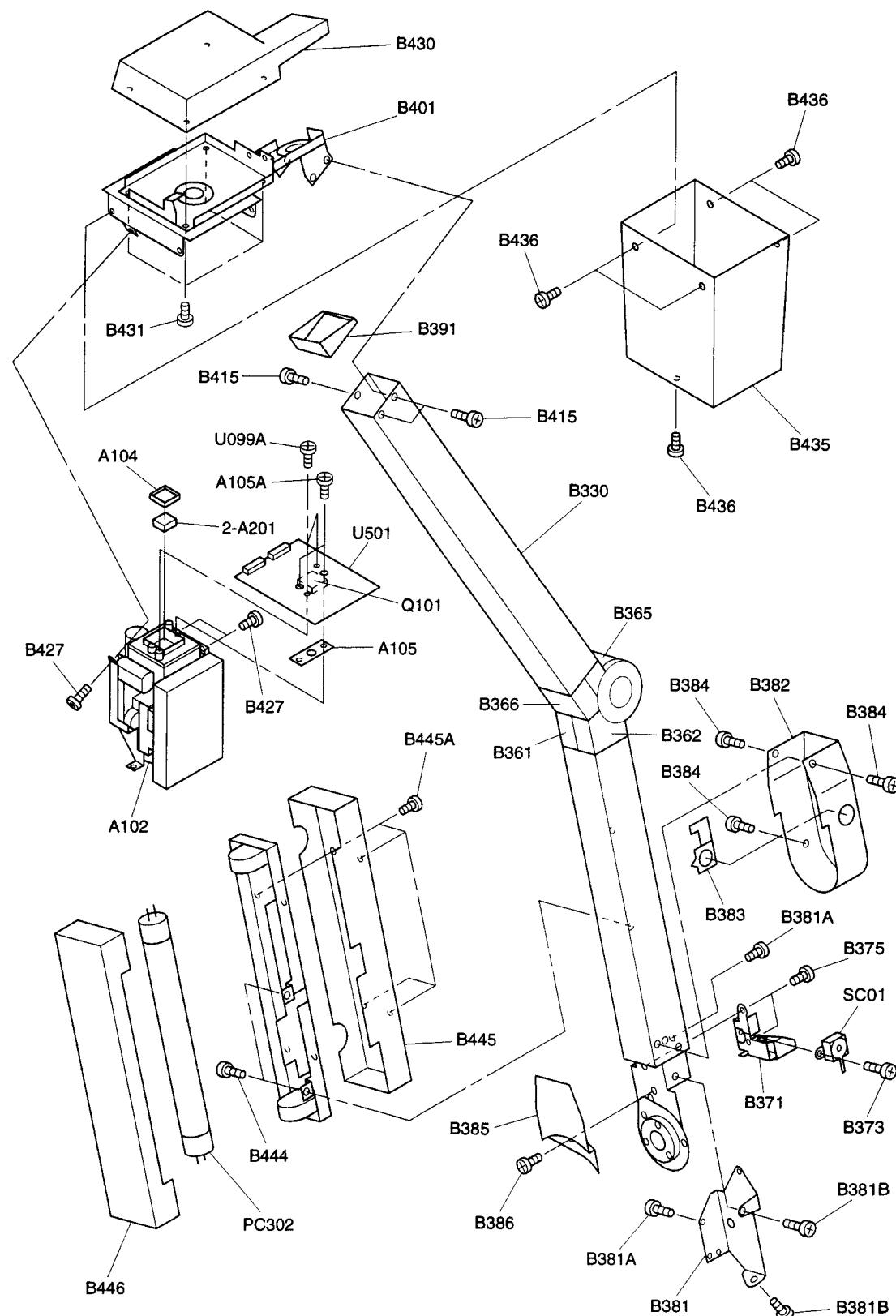


Fig. 4-6-1

5. PARTS LIST

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION
- MECHANICAL PARTS - (TLP511U/E)					
△A100	23510269	Top Cover Assy	B436	70391378	Screw
A155	23721016	Screw	B444	23723264	Screw
△1-A201	23975089	Handle Assy	△B445	23464597	Cover
2-A201	70153676	OPT. LPF	B445A	70391378	Screw
A202	23723317	Screw	△B446	23464638	Cover
A203	23721308	Screw	B451	23445112	Button
A210	23975086	Top Tag Cover	B454	23723265	Screw
△A240	23975085	Filter Cover	B455	23710152	Screw
△A241	23460902	Air Filter	B457	23445115	Cover
A242	23460903	Air Filter, Mesh	B459A	23710152	Screw
△A260	23975090	Lamp Cover Assy	B460	23448475	Bottom Cover
A270	23975087	Lens Cap	B461	23710156	Screw
A281	23723317	Screw	B470	23448473	Back Cover
A300	23560646	Sheet, Front, Tag	△E200	23795580	Optical Engine
△A301	23560648	Label	E201	23301296	LCD Panel
△A302	23560368	Label	E202	23301297	LCD Panel
△A305	23560649	Label	E203	23301298	LCD Panel
△A306	23560650	Label	Q101	70200608	IC
△A307	23560651	Label	△ML004	23504883	Wire
△A308	23560382	Label	△ML010	23504884	Wire
△A309	23560652	Label	△P100	23145469	Thermal Lead SW
△A310	23560653	Label	P200	23351111	Speaker
A400	23525358	Case	△P800	23795577	Main Power Assy
A401	23935674	Packing	P200	23905651	Fluorescence Light FL4N
A402	23935675	Packing	SC01	23344401	Switch, Detect
A404	23943034	Bag	U099A	70391261	Screw
A410	23525359	Accesssory Box	△Y101	23552631	Owners Manual
A411	23525360	Partition Board	Y101A	23943846	Cover
△B100	23510263	Chassis Bottom Assy	△Y105	23176937	Power Cord
B153	23721016	Screw	Y108	23306241	Remote Sensor Unit
B153A	70391440	Screw	△Y109	23306240	Remote Control Unit
B157	23721016	Screw	Y109A	23943846	Cover
B160A	23460943	Screw	Y111	23368679	MAC Adaptor
B161	23721016	Screw	Y120	23552633	Quick Card
B171	23721014	Screw	Y130	23368676	Cable
B188	23721018	Screw	Y131	23368677	Cable
B190	70391440	Screw	Y200	23460918	Document Sheet
B193	23721308	Screw	△Z100	23125481	Fan
B196	70391440	Screw			DC12V
B201	23721308	Screw	- DIFFERENCE LIST - (TLP511E)		
B206	23721308	Screw	△A260	23975092	Lamp Cover Assy
B207	23845860	Clamp	△A301	23560746	Label
B208	23721016	Screw	△A307	-----	Raiting
B226	23721016	Screw	A400	23525432	Case
B251	23721308	Screw	B430	23448488	Cover
B252	23845859	Clamp	B435	23448489	Cover
B262	23721308	Screw	△Y101	23552664	Owners Manual
B271	23721306	Screw	△Y102	23552632	Owners Manual
B272	23845859	Clamp	△Y105	23176002	Power Cord
B272A	23721306	Screw	Y121	23552635	Quick Card
B281	23721306	Screw	Y122	23552636	Quick Card
B320	23448477	Cover Assy	Y156	23372019	Power Cord
B321	23710179	Screw	Y156B	23943846	Cover
B330	23470480	Arm Assy			
B361	23464589	Cover			
B362	23464590	Cover			
B365	23464591	Cover			
B366	23464592	Cover			
B373	23723265	Screw			
B375	23723264	Screw			
B381A	23710176	Screw			
B382	23464602	Cover			
B383	23445113	Button			
B384	70391378	Screw			
B385	23464603	Cover			
B386	70391378	Screw			
B391	23464604	Cover			
B415	23710176	Screw			
B427	70391378	Screw			
B430	23448474	Cover			
B435	23448469	Cover			
		Camera, Top			
		Camera, Lens			

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION
- MECHANICAL PARTS - (TLP510U/E)					
△A100	23510269	Top Cover Assy	△A260	23975092	Lamp Cover Assy
A155	23721016	Screw	△A301	23560749	Label
△A1-A201	23975089	Handle Assy	△A307	-----	Raiting
A202	23723317	Screw	A400	23525435	Case
A203	23721308	Screw	△Y101	23552614	Owners Manual
A210	23975086	Top Tag Cover	△Y102	23552632	Owners Manual
△A240	23975085	Filter Cover	△Y105	23176002	Power Cord
△A241	23460902	Air Filter	Y121	23552635	Quick Card
A242	23460903	Air Filter, Mesh	Y122	23552636	Quick Card
△A260	23975090	Lamp Cover Assy	Y156	23372019	Power Cord
A270	23975087	Lens Cap	Y156B	23943846	Cover
A290	23460915	Sheet			
A300	23560690	Sheet, Front, Tag			
△A301	23560747	Label			
△A305	23560649	Label			
△A306	23560650	Label			
△A307	23560651	Label			
△A309	23560652	Label			
A400	23525433	Case			
A401	23935674	Packing			
A402	23935675	Packing			
A403	23935706	Packing, Sub			
A404	23943038	Bag			
A410	23525359	Accssory Box			
A411	23525360	Partition Board			
△B100	23510263	Chassis Bottom Assy			
B153	23721016	Screw			
B153A	70391440	Screw			
B157	23721016	Screw			
B160A	23460943	Screw			
B161	23721016	Screw			
B171	23721014	Screw			
B188	23721018	Screw			
B190	70391440	Screw			
B193	23721308	Screw			
B196	70391440	Screw			
B201	23721308	Screw			
B206	23721308	Screw			
B207	23845860	Clamp			
B208	23721016	Screw			
B226	23721016	Screw			
B251	23721308	Screw			
B252	23845859	Clamp			
B262	23721308	Screw			
B271	23721306	Screw			
B272	23845859	Clamp			
B272A	23721306	Screw			
B281	23721306	Screw			
△E200	23795580	Optical Engine	CJ301TA		
E201	23301296	LCD Panel	P13XM014 (R)		
E202	23301297	LCD Panel	P13XM014 (G)		
E203	23301298	LCD Panel	P13XM014 (B)		
△ML004	23504883	Wire	FFC, 30P		
△ML010	23504884	Wire	FFC, 30P		
△P100	23144569	Thermal Lead SW	OHD3-100B		
P200	23351111	Speaker	SPK-1378		
△P800	23795577	Main Power Assy	APS-100		
△P850	23795579	Lamp Driver			
△Y101	23552631	Owners Manual	English		
Y101A	23943846	Cover			
△Y105	23176937	Power Cord	125V, 13A		
Y106	23368618	Pin Cable	3P		
Y106A	23943855	Cover			
Y108	23306241	Remote Sensor Unit			
△Y109	23306251	Remote Control Unit			
Y109A	23943846	Cover			
Y111	23368679	MAC Adaptor			
Y120	23552633	Quick Card	English		
Y130	23368676	Cable	DSUB, 9P		
Y131	23368677	Cable	DIN4P-DSUB9P		
△Z100	23125481	Fan	DC12V		

LOCATION NUMBER	PART NUMBER	DESCRIPTION
- ELECTRICAL PARTS -		
- INTEGRATED CIRCUITS -		
■U0011	23781065	PC Board Assy Drive
Q301	23905501	IC SN75372PS
Q302	23905501	IC SN75372PS
Q304	23905501	IC SN75372PS
Q305	23905501	IC SN75372PS
Q306	23905501	IC SN75372PS
Q307	23905501	IC SN75372PS
Q308	23905501	IC SN75372PS
Q309	23905501	IC SN75372PS
Q310	A6030620	IC TC7S04F
Q311	23905501	IC SN75372PS
Q402	23319800	IC LM1201M
Q404	23319800	IC LM1201M
Q410	23906225	IC AD8072JR
Q414	23905503	IC UPD74HC4066A
Q415	23905503	IC UPD74HC4066A
Q416	23905898	IC CXA2504N
Q417	23905898	IC CXA2504N
Q418	A6030912	IC TC4W66F
Q419	23906226	IC EL2244CS
Q502	23319800	IC LM1201M
Q504	23319800	IC LM1201M
Q510	23906225	IC AD8072JR
Q514	23905503	IC UPD74HC4066A
Q515	23905503	IC UPD74HC4066A
Q516	23905898	IC CXA2504N
Q517	23905898	IC CXA2504N
Q518	A6030912	IC TC4W66F
Q519	23906226	IC EL2244CS
Q602	23319800	IC LM1201M
Q604	23319800	IC LM1201M
Q610	23906225	IC AD8072JR
Q614	23905503	IC UPD74HC4066A
Q615	23905503	IC UPD74HC4066A
Q616	23905898	IC CXA2504N
Q617	23905898	IC CXA2504N
Q618	A6030912	IC TC4W66F
Q619	23906226	IC EL2244CS
Q701	23906224	IC M62399FP
Q702	23906224	IC M62399FP
Q703	23906224	IC M62399FP
Q704	23906224	IC M62399FP
Q705	23906224	IC M62399FP
Q961	70129738	IC PQ20VZ1U
Q962	70129738	IC PQ20VZ1U
Q966	70129738	IC PQ20VZ1U
QF006	23319214	IC MC33078M
QL003	70129738	IC PQ20VZ1U
QL004	70200430	IC RN5VD27A
QL005	23904881	IC MC74HC14AF
QL006	23906209	IC CAT24C16J
QL007	70129902	IC MC74HC541FEL
QL009	B0488392	IC TC74HC125AF
QL010	70129907	IC MC74HC165F
QL012	B0488392	IC TC74HC125AF
- TRANSISTORS -		
Q312	23314323	Transistor, Chip UN5211
Q313	23314323	Transistor, Chip UN5211
Q314	23314323	Transistor, Chip UN5211
Q316	23314322	Transistor, Chip UN5111
Q317	23314322	Transistor, Chip UN5111
Q318	23314322	Transistor, Chip UN5111
Q401	A6365620	Transistor, Chip 2SC4116-Y
Q403	A6365620	Transistor, Chip 2SC4116-Y
Q405	A6549570	Transistor, Chip 2SA1586-Y
Q408	A6365620	Transistor, Chip 2SC4116-Y
Q409	A6549570	Transistor, Chip 2SA1586-Y
Q411	A6549570	Transistor, Chip 2SA1586-Y
Q423	A6365620	Transistor, Chip 2SC4116-Y
Q424	A6549570	Transistor, Chip 2SA1586-Y

LOCATION NUMBER	PART NUMBER	DESCRIPTION
- ELECTRICAL PARTS -		
- INTEGRATED CIRCUITS -		
Q425	A6365620	Transistor, Chip 2SC4116-Y
Q426	A6549570	Transistor, Chip 2SA1586-Y
Q501	A6365620	Transistor, Chip 2SC4116-Y
Q503	A6365620	Transistor, Chip 2SC4116-Y
Q505	A6549570	Transistor, Chip 2SA1586-Y
Q508	A6365620	Transistor, Chip 2SC4116-Y
Q509	A6549570	Transistor, Chip 2SA1586-Y
Q511	A6549570	Transistor, Chip 2SA1586-Y
Q523	A6365620	Transistor, Chip 2SC4116-Y
Q524	A6549570	Transistor, Chip 2SA1586-Y
Q525	A6365620	Transistor, Chip 2SC4116-Y
Q526	A6549570	Transistor, Chip 2SA1586-Y
Q601	A6365620	Transistor, Chip 2SC4116-Y
Q603	A6365620	Transistor, Chip 2SC4116-Y
Q605	A6549570	Transistor, Chip 2SA1586-Y
Q608	A6365620	Transistor, Chip 2SC4116-Y
Q609	A6549570	Transistor, Chip 2SA1586-Y
Q611	A6549570	Transistor, Chip 2SA1586-Y
Q623	A6365620	Transistor, Chip 2SC4116-Y
Q624	A6549570	Transistor, Chip 2SA1586-Y
Q625	A6365620	Transistor, Chip 2SC4116-Y
Q626	A6549570	Transistor, Chip 2SA1586-Y
Q963	A6335470	Transistor, Chip 2SC2712-Y
Q964	A6549570	Transistor, Chip 2SA1586-Y
Q965	A6549570	Transistor, Chip 2SA1586-Y
QF001	A6365620	Transistor, Chip 2SC4116-Y
QF002	A6341974	Transistor 2SC2873-Y
QF003	A6341974	Transistor 2SC2873-Y
QF004	A6365620	Transistor, Chip 2SC4116-Y
QF005	A6365620	Transistor, Chip 2SC4116-Y
QL008	A6365620	Transistor, Chip 2SC4116-Y
QL011	A6365620	Transistor, Chip 2SC4116-Y
- DIODES -		
DL011	23118313	Diode, Chip RD6. 2M
DL012	A7150800	Diode, Chip 1SS187
DL013	A7150800	Diode, Chip 1SS187
DL014	A7150800	Diode, Chip 1SS187
DL015	A7150800	Diode, Chip 1SS187
DL016	A7150800	Diode, Chip 1SS187
DL017	A7150800	Diode, Chip 1SS187
DL018	23118313	Diode, Chip RD6. 2M
DL021	23118313	Diode, Chip RD6. 2M
DL022	23118313	Diode, Chip RD6. 2M
DL023	23118313	Diode, Chip RD6. 2M
DL024	23118313	Diode, Chip RD6. 2M
DL025	23118313	Diode, Chip RD6. 2M
DL026	23118313	Diode, Chip RD6. 2M
DL027	23118313	Diode, Chip RD6. 2M
DL028	23118313	Diode, Chip RD6. 2M
DL029	23118313	Diode, Chip RD6. 2M
DL030	23118313	Diode, Chip RD6. 2M
DL031	23118313	Diode, Chip RD6. 2M
DL032	23118313	Diode, Chip RD6. 2M
DL033	23118313	Diode, Chip RD6. 2M
DL034	23118313	Diode, Chip RD6. 2M
DL037	23358535	Diode, LED SPR325MVWMNP
DL038	23358535	Diode, LED SPR325MVWMNP
DL039	23358535	Diode, LED SPR325MVWMNP
DL040	A7150800	Diode, Chip 1SS187
DL041	23118313	Diode, Chip RD6. 2M
DL042	23118313	Diode, Chip RD6. 2M
DL043	23118313	Diode, Chip RD6. 2M
- COILS -		
L301	23103864	Coil, Chip TEM2103T
L302	23103864	Coil, Chip TEM2103T
L303	23103864	Coil, Chip TEM2103T
L401	23245847	Coil, Chip TRF4330CC
L402	23245847	Coil, Chip TRF4330CC
L403	23245847	Coil, Chip TRF4330CC
L404	23245847	Coil, Chip TRF4330CC
L405	23245847	Coil, Chip TRF4330CC
L406	23245847	Coil, Chip TRF4330CC
L407	23245847	Coil, Chip TRF4330CC
L408	23245847	Coil, Chip TRF4330CC
L409	23245847	Coil, Chip TRF4330CC

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION				
L410	23245847	Coil, Chip	TRF4330CC	C412	24092399	Cap, Chip	0.1 μ F	Z 16V	
L411	23245847	Coil, Chip	TRF4330CC	C413	24092178	Cap, Chip	0.1 μ F	K 25V	
L501	23245847	Coil, Chip	TRF4330CC	C414	24092441	Cap, Chip	1 μ F	Z 16V	
L502	23245847	Coil, Chip	TRF4330CC	C415	24619101	Cap, Chip	22 μ F	M 16V	
L503	23245847	Coil, Chip	TRF4330CC	C416	24092399	Cap, Chip	0.1 μ F	Z 16V	
L504	23245847	Coil, Chip	TRF4330CC	C417	24092399	Cap, Chip	0.1 μ F	Z 16V	
L505	23245847	Coil, Chip	TRF4330CC	C418	24092178	Cap, Chip	0.1 μ F	K 25V	
L506	23245847	Coil, Chip	TRF4330CC	C419	24092538	Cap, Chip	1 μ F	Z 10V	
L507	23245847	Coil, Chip	TRF4330CC	C420	24619102	Cap, Chip	47 μ F	M 16V	
L508	23245847	Coil, Chip	TRF4330CC	C421	24092441	Cap, Chip	1 μ F	Z 16V	
L509	23245847	Coil, Chip	TRF4330CC	C422	24092441	Cap, Chip	1 μ F	Z 16V	
L510	23245847	Coil, Chip	TRF4330CC	C423	24092399	Cap, Chip	0.1 μ F	Z 16V	
L511	23245847	Coil, Chip	TRF4330CC	C424	24092399	Cap, Chip	0.1 μ F	Z 16V	
L601	23245847	Coil, Chip	TRF4330CC	C425	24092441	Cap, Chip	1 μ F	Z 16V	
L602	23245847	Coil, Chip	TRF4330CC	C426	24092441	Cap, Chip	1 μ F	Z 16V	
L603	23245847	Coil, Chip	TRF4330CC	C427	24092441	Cap, Chip	1 μ F	Z 16V	
L604	23245847	Coil, Chip	TRF4330CC	C428	24619106	Cap, Chip	33 μ F	M 25V	
L605	23245847	Coil, Chip	TRF4330CC	C429	24092399	Cap, Chip	0.1 μ F	Z 16V	
L606	23245847	Coil, Chip	TRF4330CC	C431	24619106	Cap, Chip	33 μ F	M 25V	
L607	23245847	Coil, Chip	TRF4330CC	C432	24092294	Cap, Chip	0.33 μ F	Z 16V	
L608	23245847	Coil, Chip	TRF4330CC	C433	24109103	Cap, Chip	0.01 μ F	K 25V	
L609	23245847	Coil, Chip	TRF4330CC	C434	24092538	Cap, Chip	1 μ F	Z 10V	
L610	23245847	Coil, Chip	TRF4330CC	C435	24619096	Cap, Chip	22 μ F	M 6.3V	
L611	23245847	Coil, Chip	TRF4330CC	C436	24092538	Cap, Chip	1 μ F	Z 10V	
L961	23245847	Coil, Chip	TRF4330CC	C437	24092538	Cap, Chip	1 μ F	Z 10V	
LF001	23103864	Coil, Chip	TEM2103T	C438	24092538	Cap, Chip	1 μ F	Z 10V	
LF002	23103864	Coil, Chip	TEM2103T	C439	24092294	Cap, Chip	0.33 μ F	Z 16V	
- CAPACITORS -									
C301	24092538	Cap, Chip	1 μ F	Z 10V	C440	24619106	Cap, Chip	33 μ F	M 25V
C302	24092399	Cap, Chip	0.1 μ F	Z 16V	C441	24092538	Cap, Chip	1 μ F	Z 10V
C303	24105101	Cap, Chip	100pF	J 50V	C442	24092538	Cap, Chip	1 μ F	Z 10V
C304	24105101	Cap, Chip	100pF	J 50V	C443	24092538	Cap, Chip	1 μ F	Z 10V
C305	24092538	Cap, Chip	1 μ F	Z 10V	C445	24092399	Cap, Chip	0.1 μ F	Z 16V
C306	24092399	Cap, Chip	0.1 μ F	Z 16V	C446	24619106	Cap, Chip	33 μ F	M 25V
C307	24105101	Cap, Chip	100pF	J 50V	C447	24092294	Cap, Chip	0.33 μ F	Z 16V
C308	24105101	Cap, Chip	100pF	J 50V	C448	24109103	Cap, Chip	0.01 μ F	K 25V
C310	24092538	Cap, Chip	1 μ F	Z 10V	C449	24092538	Cap, Chip	1 μ F	Z 10V
C311	24092399	Cap, Chip	0.1 μ F	Z 16V	C460	24619096	Cap, Chip	22 μ F	M 6.3V
C312	24105100	Cap, Chip	10pF	J 50V	C461	24092538	Cap, Chip	1 μ F	Z 10V
C313	24105101	Cap, Chip	100pF	J 50V	C462	24092538	Cap, Chip	1 μ F	Z 10V
C314	24092538	Cap, Chip	1 μ F	Z 10V	C463	24092538	Cap, Chip	1 μ F	Z 10V
C315	24092399	Cap, Chip	0.1 μ F	Z 16V	C464	24092294	Cap, Chip	0.33 μ F	Z 16V
C316	24105101	Cap, Chip	100pF	J 50V	C465	24619106	Cap, Chip	33 μ F	M 25V
C317	24105100	Cap, Chip	10pF	J 50V	C466	24092538	Cap, Chip	1 μ F	Z 10V
C318	24092538	Cap, Chip	1 μ F	Z 10V	C467	24092538	Cap, Chip	1 μ F	Z 10V
C319	24092399	Cap, Chip	0.1 μ F	Z 16V	C468	24092538	Cap, Chip	1 μ F	Z 10V
C320	24105101	Cap, Chip	100pF	J 50V	C469	24109103	Cap, Chip	0.01 μ F	K 25V
C321	24105101	Cap, Chip	100pF	J 50V	C470	24619106	Cap, Chip	33 μ F	M 25V
C322	24092538	Cap, Chip	1 μ F	Z 10V	C472	24092294	Cap, Chip	0.33 μ F	Z 16V
C323	24092399	Cap, Chip	0.1 μ F	Z 16V	C473	24619106	Cap, Chip	33 μ F	M 25V
C324	24105101	Cap, Chip	100pF	J 50V	C474	24092399	Cap, Chip	0.1 μ F	Z 16V
C325	24105101	Cap, Chip	100pF	J 50V	C475	24109103	Cap, Chip	0.01 μ F	K 25V
C326	24092538	Cap, Chip	1 μ F	Z 10V	C478	24092538	Cap, Chip	1 μ F	Z 10V
C327	24092399	Cap, Chip	0.1 μ F	Z 16V	C479	24092538	Cap, Chip	1 μ F	Z 10V
C328	24105101	Cap, Chip	100pF	J 50V	C502	24092515	Cap, Chip	4.7 μ F	Z 16V
C329	24105101	Cap, Chip	100pF	J 50V	C503	24092399	Cap, Chip	0.1 μ F	Z 16V
C330	24092538	Cap, Chip	1 μ F	Z 10V	C504	24092178	Cap, Chip	0.1 μ F	K 25V
C331	24092399	Cap, Chip	0.1 μ F	Z 16V	C505	24092441	Cap, Chip	1 μ F	Z 16V
C332	24105101	Cap, Chip	100pF	J 50V	C506	24619101	Cap, Chip	22 μ F	M 16V
C333	24105101	Cap, Chip	100pF	J 50V	C507	24092399	Cap, Chip	0.1 μ F	Z 16V
C334	24092538	Cap, Chip	1 μ F	Z 10V	C508	24092399	Cap, Chip	0.1 μ F	Z 16V
C335	24092399	Cap, Chip	0.1 μ F	Z 16V	C509	24092178	Cap, Chip	0.1 μ F	K 25V
C336	24619097	Cap, Chip	47 μ F	M 6.3V	C510	24092538	Cap, Chip	1 μ F	Z 10V
C337	24619106	Cap, Chip	33 μ F	M 25V	C511	24092515	Cap, Chip	4.7 μ F	Z 16V
C340	24105101	Cap, Chip	100pF	J 50V	C512	24092399	Cap, Chip	0.1 μ F	Z 16V
C402	24092515	Cap, Chip	4.7 μ F	Z 16V	C513	24092178	Cap, Chip	0.1 μ F	K 25V
C403	24092399	Cap, Chip	0.1 μ F	Z 16V	C514	24092441	Cap, Chip	1 μ F	Z 16V
C404	24092178	Cap, Chip	0.1 μ F	K 25V	C515	24619101	Cap, Chip	22 μ F	M 16V
C405	24092441	Cap, Chip	1 μ F	Z 16V	C516	24092399	Cap, Chip	0.1 μ F	Z 16V
C406	24619101	Cap, Chip	22 μ F	M 16V	C517	24092399	Cap, Chip	0.1 μ F	Z 16V
C407	24092399	Cap, Chip	0.1 μ F	Z 16V	C518	24092178	Cap, Chip	0.1 μ F	K 25V
C408	24092399	Cap, Chip	0.1 μ F	Z 16V	C519	24092538	Cap, Chip	1 μ F	Z 10V
C409	24092178	Cap, Chip	0.1 μ F	K 25V	C520	24619102	Cap, Chip	47 μ F	M 16V
C410	24092538	Cap, Chip	1 μ F	Z 10V	C521	24092441	Cap, Chip	1 μ F	Z 16V
C411	24092515	Cap, Chip	4.7 μ F	Z 16V	C522	24092441	Cap, Chip	1 μ F	Z 16V
					C523	24092399	Cap, Chip	0.1 μ F	Z 16V

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
C524	24092399	Cap, Chip	0.1 μ F
C525	24092441	Cap, Chip	1 μ F
C526	24092441	Cap, Chip	1 μ F
C527	24092441	Cap, Chip	1 μ F
C528	24619106	Cap, Chip	33 μ F
C530	24092399	Cap, Chip	0.1 μ F
C531	24619106	Cap, Chip	33 μ F
C532	24092294	Cap, Chip	0.33 μ F
C533	24109103	Cap, Chip	0.01 μ F
C534	24092538	Cap, Chip	1 μ F
C535	24619096	Cap, Chip	22 μ F
C536	24092538	Cap, Chip	1 μ F
C537	24092538	Cap, Chip	1 μ F
C538	24092538	Cap, Chip	1 μ F
C539	24092294	Cap, Chip	0.33 μ F
C540	24619106	Cap, Chip	33 μ F
C541	24092538	Cap, Chip	1 μ F
C542	24092538	Cap, Chip	1 μ F
C543	24092538	Cap, Chip	1 μ F
C545	24092399	Cap, Chip	0.1 μ F
C546	24619106	Cap, Chip	33 μ F
C547	24092294	Cap, Chip	0.33 μ F
C548	24109103	Cap, Chip	0.01 μ F
C549	24092538	Cap, Chip	1 μ F
C550	24092399	Cap, Chip	0.1 μ F
C551	24092399	Cap, Chip	0.1 μ F
C560	24619096	Cap, Chip	22 μ F
C561	24092538	Cap, Chip	1 μ F
C562	24092538	Cap, Chip	1 μ F
C563	24092538	Cap, Chip	1 μ F
C564	24092294	Cap, Chip	0.33 μ F
C565	24619106	Cap, Chip	33 μ F
C566	24092538	Cap, Chip	1 μ F
C567	24092538	Cap, Chip	1 μ F
C568	24092538	Cap, Chip	1 μ F
C569	24109103	Cap, Chip	0.01 μ F
C570	24619106	Cap, Chip	33 μ F
C572	24092294	Cap, Chip	0.33 μ F
C573	24619106	Cap, Chip	33 μ F
C574	24092399	Cap, Chip	0.1 μ F
C575	24091093	Cap, Chip	0.01 μ F
C578	24092538	Cap, Chip	1 μ F
C579	24092538	Cap, Chip	1 μ F
C602	24092515	Cap, Chip	4.7 μ F
C603	24092399	Cap, Chip	0.1 μ F
C604	24092178	Cap, Chip	0.1 μ F
C605	24092441	Cap, Chip	1 μ F
C606	24619101	Cap, Chip	22 μ F
C607	24092399	Cap, Chip	0.1 μ F
C608	24092399	Cap, Chip	0.1 μ F
C609	24092178	Cap, Chip	0.1 μ F
C610	24092538	Cap, Chip	1 μ F
C611	24092515	Cap, Chip	4.7 μ F
C612	24092399	Cap, Chip	0.1 μ F
C613	24092178	Cap, Chip	0.1 μ F
C614	24092441	Cap, Chip	1 μ F
C615	24619101	Cap, Chip	22 μ F
C616	24092399	Cap, Chip	0.1 μ F
C617	24092399	Cap, Chip	0.1 μ F
C618	24092178	Cap, Chip	0.1 μ F
C619	24092538	Cap, Chip	1 μ F
C620	24619102	Cap, Chip	47 μ F
C621	24092441	Cap, Chip	1 μ F
C622	24092441	Cap, Chip	1 μ F
C623	24092399	Cap, Chip	0.1 μ F
C624	24092399	Cap, Chip	0.1 μ F
C625	24092441	Cap, Chip	1 μ F
C626	24092441	Cap, Chip	1 μ F
C627	24092441	Cap, Chip	1 μ F
C628	24619106	Cap, Chip	33 μ F
C630	24092399	Cap, Chip	0.1 μ F
C631	24619106	Cap, Chip	33 μ F
C632	24092294	Cap, Chip	0.33 μ F
C633	24109103	Cap, Chip	0.01 μ F
C634	24092538	Cap, Chip	1 μ F

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
C635	24619096	Cap, Chip	22 μ F
C636	24092538	Cap, Chip	1 μ F
C637	24092538	Cap, Chip	1 μ F
C638	24092538	Cap, Chip	1 μ F
C639	24092294	Cap, Chip	0.33 μ F
C640	24619106	Cap, Chip	33 μ F
C641	24092538	Cap, Chip	1 μ F
C642	24092538	Cap, Chip	1 μ F
C643	24092538	Cap, Chip	1 μ F
C645	24092399	Cap, Chip	0.1 μ F
C646	24619106	Cap, Chip	33 μ F
C647	24092294	Cap, Chip	0.33 μ F
C648	24109103	Cap, Chip	0.01 μ F
C649	24092538	Cap, Chip	1 μ F
C660	24619096	Cap, Chip	22 μ F
C661	24092538	Cap, Chip	1 μ F
C662	24092538	Cap, Chip	1 μ F
C663	24092538	Cap, Chip	1 μ F
C664	24092294	Cap, Chip	0.33 μ F
C665	24619106	Cap, Chip	33 μ F
C666	24092538	Cap, Chip	1 μ F
C667	24092538	Cap, Chip	1 μ F
C668	24092538	Cap, Chip	1 μ F
C669	24109103	Cap, Chip	0.01 μ F
C670	24619106	Cap, Chip	33 μ F
C672	24092294	Cap, Chip	0.33 μ F
C673	24619106	Cap, Chip	33 μ F
C674	24092399	Cap, Chip	0.1 μ F
C675	24109103	Cap, Chip	0.01 μ F
C678	24092538	Cap, Chip	1 μ F
C679	24092538	Cap, Chip	1 μ F
C701	24092399	Cap, Chip	0.1 μ F
C702	24092399	Cap, Chip	0.1 μ F
C703	24092399	Cap, Chip	0.1 μ F
C704	24092399	Cap, Chip	0.1 μ F
C705	24092399	Cap, Chip	0.1 μ F
C706	24092399	Cap, Chip	0.1 μ F
C707	24092399	Cap, Chip	0.1 μ F
C708	24092399	Cap, Chip	0.1 μ F
C709	24092399	Cap, Chip	0.1 μ F
C710	24092399	Cap, Chip	0.1 μ F
C711	24092399	Cap, Chip	0.1 μ F
C712	24092399	Cap, Chip	0.1 μ F
C713	24092399	Cap, Chip	0.1 μ F
C714	24092399	Cap, Chip	0.1 μ F
C715	24092399	Cap, Chip	0.1 μ F
C716	24092399	Cap, Chip	0.1 μ F
C717	24092399	Cap, Chip	0.1 μ F
C718	24092399	Cap, Chip	0.1 μ F
C719	24092399	Cap, Chip	0.1 μ F
C720	24092399	Cap, Chip	0.1 μ F
C721	24092399	Cap, Chip	0.1 μ F
C722	24092399	Cap, Chip	0.1 μ F
C723	24092399	Cap, Chip	0.1 μ F
C724	24092399	Cap, Chip	0.1 μ F
C725	24092399	Cap, Chip	0.1 μ F
C726	24092399	Cap, Chip	0.1 μ F
C727	24092399	Cap, Chip	0.1 μ F
C728	24092399	Cap, Chip	0.1 μ F
C729	24092399	Cap, Chip	0.1 μ F
C730	24092399	Cap, Chip	0.1 μ F
C731	24092399	Cap, Chip	0.1 μ F
C732	24092399	Cap, Chip	0.1 μ F
C733	24092399	Cap, Chip	0.1 μ F
C734	24092399	Cap, Chip	0.1 μ F
C735	24092399	Cap, Chip	0.1 μ F
C736	24092399	Cap, Chip	0.1 μ F
C737	24092399	Cap, Chip	0.1 μ F
C738	24092399	Cap, Chip	0.1 μ F
C739	24092399	Cap, Chip	0.1 μ F
C740	24092399	Cap, Chip	0.1 μ F
C741	24092538	Cap, Chip	1 μ F
C742	24092441	Cap, Chip	1 μ F
C743	24092538	Cap, Chip	1 μ F
C744	24092441	Cap, Chip	1 μ F

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION
C745	24092441	Cap, Chip	1μF	Z 16V	
C746	24092538	Cap, Chip	1μF	Z 10V	
C747	24092441	Cap, Chip	1μF	Z 16V	
C748	24092538	Cap, Chip	1μF	Z 10V	
C749	24092441	Cap, Chip	1μF	Z 16V	
C750	24092538	Cap, Chip	1μF	Z 10V	
C961	24619106	Cap, Chip	33μF	M 25V	
C962	24092293	Cap, Chip	0.1μF	Z 25V	
C963	24619106	Cap, Chip	33μF	M 25V	
C964	24092441	Cap, Chip	1μF	Z 16V	
C965	24619106	Cap, Chip	33μF	M 25V	
C966	24092293	Cap, Chip	0.1μF	Z 25V	
C967	24619106	Cap, Chip	33μF	M 25V	
C968	24092441	Cap, Chip	1μF	Z 16V	
C969	24092515	Cap, Chip	4.7μF	Z 16V	
C970	24092538	Cap, Chip	1μF	Z 10V	
C971	24092538	Cap, Chip	1μF	Z 10V	
C972	24092538	Cap, Chip	1μF	Z 10V	
C973	24619099	Cap, Chip	33μF	M 10V	
C974	24092538	Cap, Chip	1μF	Z 10V	
C975	24619099	Cap, Chip	33μF	M 10V	
C976	24092538	Cap, Chip	1μF	Z 10V	
CF005	24619102	Cap, Chip	47μF	M 16V	
CF006	24619102	Cap, Chip	47μF	M 16V	
CF009	24619102	Cap, Chip	47μF	M 16V	
CF010	24619102	Cap, Chip	47μF	M 16V	
CF013	24105101	Cap, Chip	100pF	J 50V	
CF014	24105101	Cap, Chip	100pF	J 50V	
CF015	24092441	Cap, Chip	1μF	Z 16V	
CF016	24092441	Cap, Chip	1μF	Z 16V	
CF017	24619102	Cap, Chip	47μF	M 16V	
CF018	24619102	Cap, Chip	47μF	M 16V	
CL011	24105101	Cap, Chip	100pF	J 50V	
CL012	24105101	Cap, Chip	100pF	J 50V	
CL013	24105101	Cap, Chip	100pF	J 50V	
CL014	24105101	Cap, Chip	100pF	J 50V	
CL015	24105101	Cap, Chip	100pF	J 50V	
CL016	24105101	Cap, Chip	100pF	J 50V	
CL017	24105101	Cap, Chip	100pF	J 50V	
CL018	24105101	Cap, Chip	100pF	J 50V	
CL019	24105101	Cap, Chip	100pF	J 50V	
CL020	24105101	Cap, Chip	100pF	J 50V	
CL021	24105101	Cap, Chip	100pF	J 50V	
CL022	24105101	Cap, Chip	100pF	J 50V	
CL023	24105101	Cap, Chip	100pF	J 50V	
CL024	24105101	Cap, Chip	100pF	J 50V	
CL025	24105101	Cap, Chip	100pF	J 50V	
CL026	24105101	Cap, Chip	100pF	J 50V	
CL027	24105101	Cap, Chip	100pF	J 50V	
CL028	24105101	Cap, Chip	100pF	J 50V	
CL029	24105101	Cap, Chip	100pF	J 50V	
CL030	24105101	Cap, Chip	100pF	J 50V	
CL031	24105101	Cap, Chip	100pF	J 50V	
CL032	24105101	Cap, Chip	100pF	J 50V	
CL033	24105101	Cap, Chip	100pF	J 50V	
CL034	24105101	Cap, Chip	100pF	J 50V	
CL035	24105101	Cap, Chip	100pF	J 50V	
CL036	24105101	Cap, Chip	100pF	J 50V	
CL037	24105101	Cap, Chip	100pF	J 50V	
CL038	24105101	Cap, Chip	100pF	J 50V	
CL039	24105101	Cap, Chip	100pF	J 50V	
CL040	24105101	Cap, Chip	100pF	J 50V	
CL041	24105101	Cap, Chip	100pF	J 50V	
CL042	24105101	Cap, Chip	100pF	J 50V	
CL043	24105101	Cap, Chip	100pF	J 50V	
CL044	24105101	Cap, Chip	100pF	J 50V	
CL045	24105101	Cap, Chip	100pF	J 50V	
CL046	24105101	Cap, Chip	100pF	J 50V	
CL047	24105101	Cap, Chip	100pF	J 50V	
CL048	24105101	Cap, Chip	100pF	J 50V	
CL049	24105101	Cap, Chip	100pF	J 50V	
CL050	24105101	Cap, Chip	100pF	J 50V	
CL051	24105101	Cap, Chip	100pF	J 50V	
CL052	24105101	Cap, Chip	100pF	J 50V	
CL053	24105101	Cap, Chip	100pF	J 50V	
- RESISTORS -					
	R301	24011560	Res, Chip	56Ω	J 1/20W
	R302	24011560	Res, Chip	56Ω	J 1/20W
	R303	24011560	Res, Chip	56Ω	J 1/20W
	R304	24011560	Res, Chip	56Ω	J 1/20W
	R305	24011560	Res, Chip	56Ω	J 1/20W
	R306	24011470	Res, Chip	47Ω	J 1/20W
	R307	24011470	Res, Chip	47Ω	J 1/20W
	R308	24011560	Res, Chip	56Ω	J 1/20W
	R309	24011560	Res, Chip	56Ω	J 1/20W
	R310	24011560	Res, Chip	56Ω	J 1/20W
	R311	24011560	Res, Chip	56Ω	J 1/20W
	R312	24011560	Res, Chip	56Ω	J 1/20W
	R313	24011560	Res, Chip	56Ω	J 1/20W
	R314	24011560	Res, Chip	56Ω	J 1/20W
	R315	24011560	Res, Chip	56Ω	J 1/20W
	R316	24011560	Res, Chip	56Ω	J 1/20W
	R317	24011560	Res, Chip	56Ω	J 1/20W
	R318	24011103	Res, Chip	10kΩ	J 1/20W
	R319	24011103	Res, Chip	10kΩ	J 1/20W
	R320	24011103	Res, Chip	10kΩ	J 1/20W
	R321	24011101	Res, Chip	100Ω	J 1/20W
	R322	24011101	Res, Chip	100Ω	J 1/20W

LOCATION	PART NUMBER	DESCRIPTION	
R401	24000445	Res, Chip Jumper	0Ω
R402	24011152	Res, Chip	1.5kΩ J 1/20W
R403	24011103	Res, Chip	10kΩ J 1/20W
R404	24011201	Res, Chip	200Ω J 1/20W
R405	24011510	Res, Chip	51Ω J 1/20W
R406	24000445	Res, Chip Jumper	0Ω
R407	24011201	Res, Chip	200Ω J 1/20W
R408	24011331	Res, Chip	330Ω J 1/20W
R409	24000445	Res, Chip Jumper	0Ω
R410	24011152	Res, Chip	1.5kΩ J 1/20W
R411	24011103	Res, Chip	10kΩ J 1/20W
R412	24011201	Res, Chip	200Ω J 1/20W
R413	24011510	Res, Chip	51Ω J 1/20W
R414	24000445	Res, Chip Jumper	0Ω
R415	24011201	Res, Chip	200Ω J 1/20W
R416	24011331	Res, Chip	330Ω J 1/20W
R417	24011332	Res, Chip	3.3kΩ J 1/20W
R418	24011391	Res, Chip	390Ω J 1/20W
R419	24011391	Res, Chip	390Ω J 1/20W
R420	24011102	Res, Chip	1kΩ J 1/20W
R421	24011332	Res, Chip	3.3kΩ J 1/20W
R422	24000824	Chip Jumper	
R423	24000557	Res, Chip	680Ω F 1/16W
R424	24000557	Res, Chip	680Ω F 1/16W
R425	24011102	Res, Chip	1kΩ J 1/20W
R426	24011332	Res, Chip	3.3kΩ J 1/20W
R427	24000824	Chip Jumper	
R428	24000557	Res, Chip	680Ω F 1/16W
R429	24000557	Res, Chip	680Ω F 1/16W
R430	24011101	Res, Chip	100Ω J 1/20W
R431	24011391	Res, Chip	390Ω J 1/20W
R432	24011391	Res, Chip	390Ω J 1/20W
R433	24000445	Res, Chip Jumper	0Ω
R434	24000445	Res, Chip Jumper	0Ω
R435	24000445	Res, Chip Jumper	0Ω
R436	24000445	Res, Chip Jumper	0Ω
R437	24011100	Res, Chip	10Ω J 1/20W
R438	24011100	Res, Chip	10Ω J 1/20W
R439	24011100	Res, Chip	10Ω J 1/20W
R440	24011223	Res, Chip	22kΩ J 1/20W
R441	24011100	Res, Chip	10Ω J 1/20W
R442	24011100	Res, Chip	10Ω J 1/20W
R443	24011100	Res, Chip	10Ω J 1/20W
R444	24011100	Res, Chip	10Ω J 1/20W
R445	24011394	Res, Chip	390kΩ J 1/20W
R446	24011394	Res, Chip	390kΩ J 1/20W
R447	24011394	Res, Chip	390kΩ J 1/20W
R448	24011394	Res, Chip	390kΩ J 1/20W
R449	24011394	Res, Chip	390kΩ J 1/20W
R450	24011473	Res, Chip	47kΩ J 1/20W
R451	24011101	Res, Chip	100Ω J 1/20W
R452	24011332	Res, Chip	3.3kΩ J 1/20W
R460	24011394	Res, Chip	390kΩ J 1/20W
R461	24011100	Res, Chip	10Ω J 1/20W
R462	24011100	Res, Chip	10Ω J 1/20W
R463	24011100	Res, Chip	10Ω J 1/20W
R464	24011100	Res, Chip	10Ω J 1/20W
R465	24011223	Res, Chip	22kΩ J 1/20W
R466	24011100	Res, Chip	10Ω J 1/20W
R467	24011100	Res, Chip	10Ω J 1/20W
R468	24011100	Res, Chip	10Ω J 1/20W
R469	24011100	Res, Chip	10Ω J 1/20W
R470	24011394	Res, Chip	390kΩ J 1/20W
R471	24011394	Res, Chip	390kΩ J 1/20W
R472	24011394	Res, Chip	390kΩ J 1/20W
R473	24011394	Res, Chip	390kΩ J 1/20W
R474	24011394	Res, Chip	390kΩ J 1/20W
R475	24011394	Res, Chip	390kΩ J 1/20W
R476	24011473	Res, Chip	47kΩ J 1/20W
R477	24011100	Res, Chip	10Ω J 1/20W
R478	24011102	Res, Chip	1kΩ J 1/20W
R479	24011102	Res, Chip	1kΩ J 1/20W
R480	24011102	Res, Chip	1kΩ J 1/20W
R481	24000445	Res, Chip Jumper	0Ω
R482	24011183	Res, Chip	18kΩ J 1/20W

LOCATION	PART NUMBER	DESCRIPTION	
R483	24011472	Res, Chip	4.7kΩ J 1/20W
R484	24011332	Res, Chip	3.3kΩ J 1/20W
R487	24000445	Res, Chip Jumper	0Ω
R488	24000445	Res, Chip Jumper	0Ω
R493	24011472	Res, Chip	4.7kΩ J 1/20W
R494	24011332	Res, Chip	3.3kΩ J 1/20W
R495	24011392	Res, Chip	3.9kΩ J 1/20W
R496	24011392	Res, Chip	3.9kΩ J 1/20W
R497	24011103	Res, Chip	10kΩ J 1/20W
R498	24011102	Res, Chip	1kΩ J 1/20W
R499	24000445	Res, Chip Jumper	0Ω
R501	24000445	Res, Chip Jumper	0Ω
R502	24011152	Res, Chip	1.5kΩ J 1/20W
R503	24011103	Res, Chip	10kΩ J 1/20W
R504	24011201	Res, Chip	200Ω J 1/20W
R505	24011510	Res, Chip	51Ω J 1/20W
R506	24000445	Res, Chip Jumper	0Ω
R507	24011201	Res, Chip	200Ω J 1/20W
R508	24011331	Res, Chip	330Ω J 1/20W
R509	24000445	Res, Chip Jumper	0Ω
R510	24011152	Res, Chip	1.5kΩ J 1/20W
R511	24011103	Res, Chip	10kΩ J 1/20W
R512	24011201	Res, Chip	200Ω J 1/20W
R513	24011510	Res, Chip	51Ω J 1/20W
R514	24000445	Res, Chip Jumper	0Ω
R515	24011201	Res, Chip	200Ω J 1/20W
R516	24011331	Res, Chip	330Ω J 1/20W
R517	24011332	Res, Chip	3.3kΩ J 1/20W
R518	24011391	Res, Chip	390Ω J 1/20W
R519	24011391	Res, Chip	390Ω J 1/20W
R520	24011102	Res, Chip	1kΩ J 1/20W
R521	24011332	Res, Chip	3.3kΩ J 1/20W
R522	24000824	Chip Jumper	
R523	24000557	Res, Chip	680Ω F 1/16W
R524	24000557	Res, Chip	680Ω F 1/16W
R525	24011102	Res, Chip	1kΩ J 1/20W
R526	24011332	Res, Chip	3.3kΩ J 1/20W
R527	24000824	Chip Jumper	
R528	24000557	Res, Chip	680Ω F 1/16W
R529	24000557	Res, Chip	680Ω F 1/16W
R530	24011101	Res, Chip	100Ω J 1/20W
R531	24011391	Res, Chip	390Ω J 1/20W
R532	24011391	Res, Chip	390Ω J 1/20W
R533	24000445	Res, Chip Jumper	0Ω
R534	24000445	Res, Chip Jumper	0Ω
R535	24000445	Res, Chip Jumper	0Ω
R536	24000445	Res, Chip Jumper	0Ω
R537	24011100	Res, Chip	10Ω J 1/20W
R538	24011100	Res, Chip	10Ω J 1/20W
R539	24011100	Res, Chip	10Ω J 1/20W
R540	24011223	Res, Chip	22kΩ J 1/20W
R541	24011100	Res, Chip	10Ω J 1/20W
R542	24011100	Res, Chip	10Ω J 1/20W
R543	24011100	Res, Chip	10Ω J 1/20W
R544	24011100	Res, Chip	10Ω J 1/20W
R545	24011394	Res, Chip	390kΩ J 1/20W
R546	24011394	Res, Chip	390kΩ J 1/20W
R547	24011394	Res, Chip	390kΩ J 1/20W
R548	24011394	Res, Chip	390kΩ J 1/20W
R549	24011394	Res, Chip	390kΩ J 1/20W
R550	24011473	Res, Chip	47kΩ J 1/20W
R551	24011101	Res, Chip	100Ω J 1/20W
R552	24011332	Res, Chip	3.3kΩ J 1/20W
R553	24011472	Res, Chip	4.7kΩ J 1/20W
R554	24011472	Res, Chip	4.7kΩ J 1/20W
R555	24011153	Res, Chip	15kΩ J 1/20W
R556	24011472	Res, Chip	4.7kΩ J 1/20W
R557	24011472	Res, Chip	4.7kΩ J 1/20W
R558	24011153	Res, Chip	15kΩ J 1/20W
R560	24011394	Res, Chip	390kΩ J 1/20W
R561	24011100	Res, Chip	10Ω J 1/20W
R562	24011100	Res, Chip	10Ω J 1/20W
R563	24011100	Res, Chip	10Ω J 1/20W
R564	24011100	Res, Chip	10Ω J 1/20W
R565	24011223	Res, Chip	22kΩ J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION		
R566	24011100	Res, Chip	10Ω	J 1/20W	R646 24011394 Res, Chip	390kΩ	J 1/20W
R567	24011100	Res, Chip	10Ω	J 1/20W	R647 24011394 Res, Chip	390kΩ	J 1/20W
R568	24011100	Res, Chip	10Ω	J 1/20W	R648 24011394 Res, Chip	390kΩ	J 1/20W
R569	24011100	Res, Chip	10Ω	J 1/20W	R649 24011394 Res, Chip	390kΩ	J 1/20W
R570	24011394	Res, Chip	390kΩ	J 1/20W	R650 24011473 Res, Chip	47kΩ	J 1/20W
R571	24011394	Res, Chip	390kΩ	J 1/20W	R651 24011101 Res, Chip	100Ω	J 1/20W
R572	24011394	Res, Chip	390kΩ	J 1/20W	R652 24011332 Res, Chip	3.3kΩ	J 1/20W
R573	24011394	Res, Chip	390kΩ	J 1/20W	R660 24011394 Res, Chip	390kΩ	J 1/20W
R574	24011394	Res, Chip	390kΩ	J 1/20W	R661 24011100 Res, Chip	10Ω	J 1/20W
R575	24011394	Res, Chip	390kΩ	J 1/20W	R662 24011100 Res, Chip	10Ω	J 1/20W
R576	24011473	Res, Chip	47kΩ	J 1/20W	R663 24011100 Res, Chip	10Ω	J 1/20W
R577	24011100	Res, Chip	10Ω	J 1/20W	R664 24011100 Res, Chip	10Ω	J 1/20W
R578	24011102	Res, Chip	1kΩ	J 1/20W	R665 24011223 Res, Chip	22kΩ	J 1/20W
R579	24011102	Res, Chip	1kΩ	J 1/20W	R666 24011100 Res, Chip	10Ω	J 1/20W
R580	24011102	Res, Chip	1kΩ	J 1/20W	R667 24011100 Res, Chip	10Ω	J 1/20W
R581	24000445	Res, Chip Jumper	0Ω		R668 24011100 Res, Chip	10Ω	J 1/20W
R582	24011183	Res, Chip	18kΩ	J 1/20W	R669 24011100 Res, Chip	10Ω	J 1/20W
R583	24011472	Res, Chip	4.7kΩ	J 1/20W	R670 24011394 Res, Chip	390kΩ	J 1/20W
R584	24011332	Res, Chip	3.3kΩ	J 1/20W	R671 24011394 Res, Chip	390kΩ	J 1/20W
R585	24000445	Res, Chip Jumper	0Ω		R672 24011394 Res, Chip	390kΩ	J 1/20W
R586	24000445	Res, Chip Jumper	0Ω		R673 24011394 Res, Chip	390kΩ	J 1/20W
R587	24000445	Res, Chip Jumper	0Ω		R674 24011394 Res, Chip	390kΩ	J 1/20W
R588	24000445	Res, Chip Jumper	0Ω		R675 24011394 Res, Chip	390kΩ	J 1/20W
R593	24011472	Res, Chip	4.7kΩ	J 1/20W	R676 24011473 Res, Chip	47kΩ	J 1/20W
R594	24011332	Res, Chip	3.3kΩ	J 1/20W	R677 24011100 Res, Chip	10Ω	J 1/20W
R595	24011392	Res, Chip	3.9kΩ	J 1/20W	R678 24011102 Res, Chip	1kΩ	J 1/20W
R596	24011392	Res, Chip	3.9kΩ	J 1/20W	R679 24011102 Res, Chip	1kΩ	J 1/20W
R597	24011103	Res, Chip	10kΩ	J 1/20W	R680 24011102 Res, Chip	1kΩ	J 1/20W
R598	24011102	Res, Chip	1kΩ	J 1/20W	R681 24000445 Res, Chip Jumper	0Ω	
R599	24000445	Res, Chip Jumper	0Ω		R682 24011183 Res, Chip	18kΩ	J 1/20W
R601	24000445	Res, Chip Jumper	0Ω		R683 24011472 Res, Chip	4.7kΩ	J 1/20W
R602	24011152	Res, Chip	1.5kΩ	J 1/20W	R684 24011332 Res, Chip	3.3kΩ	J 1/20W
R603	24011103	Res, Chip	10kΩ	J 1/20W	R687 24000445 Res, Chip Jumper	0Ω	
R604	24011201	Res, Chip	200Ω	J 1/20W	R688 24000445 Res, Chip Jumper	0Ω	
R605	24011510	Res, Chip	51Ω	J 1/20W	R693 24011472 Res, Chip	4.7kΩ	J 1/20W
R606	24000445	Res, Chip Jumper	0Ω		R694 24011332 Res, Chip	3.3kΩ	J 1/20W
R607	24011201	Res, Chip	200Ω	J 1/20W	R695 24011392 Res, Chip	3.9kΩ	J 1/20W
R608	24011331	Res, Chip	330Ω	J 1/20W	R696 24011392 Res, Chip	3.9kΩ	J 1/20W
R609	24000445	Res, Chip Jumper	0Ω		R697 24011103 Res, Chip	10kΩ	J 1/20W
R610	24011152	Res, Chip	1.5kΩ	J 1/20W	R698 24011102 Res, Chip	1kΩ	J 1/20W
R611	24011103	Res, Chip	10kΩ	J 1/20W	R699 24000445 Res, Chip Jumper	0Ω	
R612	24011201	Res, Chip	200Ω	J 1/20W	R701 24011101 Res, Chip	100Ω	J 1/20W
R613	24011510	Res, Chip	51Ω	J 1/20W	R702 24011101 Res, Chip	100Ω	J 1/20W
R614	24000445	Res, Chip Jumper	0Ω		R703 24011101 Res, Chip	100Ω	J 1/20W
R615	24011201	Res, Chip	200Ω	J 1/20W	R704 24011101 Res, Chip	100Ω	J 1/20W
R616	24011331	Res, Chip	330Ω	J 1/20W	R705 24011101 Res, Chip	100Ω	J 1/20W
R617	24011332	Res, Chip	3.3kΩ	J 1/20W	R706 24011101 Res, Chip	100Ω	J 1/20W
R618	24011391	Res, Chip	390Ω	J 1/20W	R707 24011101 Res, Chip	100Ω	J 1/20W
R619	24011391	Res, Chip	390Ω	J 1/20W	R708 24011101 Res, Chip	100Ω	J 1/20W
R620	24011102	Res, Chip	1kΩ	J 1/20W	R709 24011101 Res, Chip	100Ω	J 1/20W
R621	24011332	Res, Chip	3.3kΩ	J 1/20W	R710 24011101 Res, Chip	100Ω	J 1/20W
R622	24000824	Chip Jumper			R711 24011101 Res, Chip	100Ω	J 1/20W
R623	24000557	Res, Chip	680Ω	F 1/16W	R712 24011101 Res, Chip	100Ω	J 1/20W
R624	24000557	Res, Chip	680Ω	F 1/16W	R713 24011101 Res, Chip	100Ω	J 1/20W
R625	24011102	Res, Chip	1kΩ	J 1/20W	R714 24011101 Res, Chip	100Ω	J 1/20W
R626	24011332	Res, Chip	3.3kΩ	J 1/20W	R715 24011101 Res, Chip	100Ω	J 1/20W
R627	24000824	Chip Jumper			R716 24011101 Res, Chip	100Ω	J 1/20W
R628	24000557	Res, Chip	680Ω	F 1/16W	R717 24011101 Res, Chip	100Ω	J 1/20W
R629	24000557	Res, Chip	680Ω	F 1/16W	R718 24011101 Res, Chip	100Ω	J 1/20W
R630	24011101	Res, Chip	100Ω	J 1/20W	R719 24011101 Res, Chip	100Ω	J 1/20W
R631	24011391	Res, Chip	390Ω	J 1/20W	R720 24011101 Res, Chip	100Ω	J 1/20W
R632	24011391	Res, Chip	390Ω	J 1/20W	R721 24011101 Res, Chip	100Ω	J 1/20W
R633	24000445	Res, Chip Jumper	0Ω		R722 24011101 Res, Chip	100Ω	J 1/20W
R634	24000445	Res, Chip Jumper	0Ω		R723 24011101 Res, Chip	100Ω	J 1/20W
R635	24000445	Res, Chip Jumper	0Ω		R724 24011101 Res, Chip	100Ω	J 1/20W
R636	24000445	Res, Chip Jumper	0Ω		R725 24011101 Res, Chip	100Ω	J 1/20W
R637	24011100	Res, Chip	10Ω	J 1/20W	R726 24011101 Res, Chip	100Ω	J 1/20W
R638	24011100	Res, Chip	10Ω	J 1/20W	R727 24011101 Res, Chip	100Ω	J 1/20W
R639	24011100	Res, Chip	10Ω	J 1/20W	R728 24011101 Res, Chip	100Ω	J 1/20W
R640	24011223	Res, Chip	22kΩ	J 1/20W	R729 24011101 Res, Chip	100Ω	J 1/20W
R641	24011100	Res, Chip	10Ω	J 1/20W	R730 24011101 Res, Chip	100Ω	J 1/20W
R642	24011100	Res, Chip	10Ω	J 1/20W	R731 24011101 Res, Chip	100Ω	J 1/20W
R643	24011100	Res, Chip	10Ω	J 1/20W	R732 24011101 Res, Chip	100Ω	J 1/20W
R644	24011100	Res, Chip	10Ω	J 1/20W	R733 24011101 Res, Chip	100Ω	J 1/20W
R645	24011394	Res, Chip	390kΩ	J 1/20W	R734 24011101 Res, Chip	100Ω	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
R735	24011101	Res, Chip	100Ω J 1/20W
R736	24011101	Res, Chip	100Ω J 1/20W
R737	24011101	Res, Chip	100Ω J 1/20W
R738	24011101	Res, Chip	100Ω J 1/20W
R739	24011101	Res, Chip	100Ω J 1/20W
R740	24011101	Res, Chip	100Ω J 1/20W
R961	24011102	Res, Chip	1kΩ J 1/20W
R962	24011113	Res, Chip	11kΩ J 1/20W
R963	24011102	Res, Chip	1kΩ J 1/20W
R964	24011161	Res, Chip	160Ω J 1/20W
R965	24011103	Res, Chip	10kΩ J 1/20W
R966	24011361	Res, Chip	360Ω J 1/20W
R967	24011471	Res, Chip	470Ω J 1/20W
R968	24011472	Res, Chip	4.7kΩ J 1/20W
R969	24011472	Res, Chip	4.7kΩ J 1/20W
R970	24011102	Res, Chip	1kΩ J 1/20W
R971	24011302	Res, Chip	3kΩ J 1/20W
R972	24019428	Res, Chip	18Ω J 1W
R973	24019428	Res, Chip	18Ω J 1W
R974	24019428	Res, Chip	18Ω J 1W
RF004	24011473	Res, Chip	47kΩ J 1/20W
RF005	24011102	Res, Chip	1kΩ J 1/20W
RF006	24011102	Res, Chip	1kΩ J 1/20W
RF007	24019112	Res, Chip	1Ω F 1/BW
RF008	24019112	Res, Chip	1Ω F 1/BW
RF009	24019012	Res, Chip	51Ω J 1W
RF010	24019012	Res, Chip	51Ω J 1W
RF011	24019011	Res, Chip	39Ω J 1W
RF012	24019011	Res, Chip	39Ω J 1W
RF013	24011472	Res, Chip	4.7kΩ J 1/20W
RF014	24011472	Res, Chip	4.7kΩ J 1/20W
RF015	24011221	Res, Chip	220Ω J 1/20W
RF016	24011221	Res, Chip	220Ω J 1/20W
RF017	24011101	Res, Chip	100Ω J 1/20W
RF018	24011101	Res, Chip	100Ω J 1/20W
RF019	24011103	Res, Chip	10kΩ J 1/20W
RF020	24011103	Res, Chip	10kΩ J 1/20W
RF021	24011102	Res, Chip	1kΩ J 1/20W
RF022	24011102	Res, Chip	1kΩ J 1/20W
RF024	24011243	Res, Chip	24kΩ J 1/20W
RF025	24011103	Res, Chip	10kΩ J 1/20W
RF026	24000607	Res, Chip	22kΩ F 1/16W
RF027	24011104	Res, Chip	100kΩ J 1/20W
RF028	24011102	Res, Chip	1kΩ J 1/20W
RF029	24000607	Res, Chip	22kΩ F 1/16W
RL011	24011102	Res, Chip	1kΩ J 1/20W
RL012	24011123	Res, Chip	12kΩ J 1/20W
RL013	24011123	Res, Chip	12kΩ J 1/20W
RL014	24011123	Res, Chip	12kΩ J 1/20W
RL015	24011101	Res, Chip	100Ω J 1/20W
RL016	24011102	Res, Chip	1kΩ J 1/20W
RL017	24011102	Res, Chip	1kΩ J 1/20W
RL018	24011102	Res, Chip	1kΩ J 1/20W
RL019	24011102	Res, Chip	1kΩ J 1/20W
RL020	24011102	Res, Chip	1kΩ J 1/20W
RL021	24011102	Res, Chip	1kΩ J 1/20W
RL022	24011102	Res, Chip	1kΩ J 1/20W
RL023	24011102	Res, Chip	1kΩ J 1/20W
RL024	24011102	Res, Chip	1kΩ J 1/20W
RL025	24011102	Res, Chip	1kΩ J 1/20W
RL026	24011102	Res, Chip	1kΩ J 1/20W
RL027	24011102	Res, Chip	1kΩ J 1/20W
RL028	24011102	Res, Chip	1kΩ J 1/20W
RL029	24011102	Res, Chip	1kΩ J 1/20W
RL030	24011102	Res, Chip	1kΩ J 1/20W
RL031	24011102	Res, Chip	1kΩ J 1/20W
RL032	24011102	Res, Chip	1kΩ J 1/20W
RL033	24011102	Res, Chip	1kΩ J 1/20W
RL034	24011102	Res, Chip	1kΩ J 1/20W
RL035	24011102	Res, Chip	1kΩ J 1/20W
RL036	24011102	Res, Chip	1kΩ J 1/20W
RL037	24011102	Res, Chip	1kΩ J 1/20W
RL038	24011102	Res, Chip	1kΩ J 1/20W
RL039	24011102	Res, Chip	1kΩ J 1/20W
RL040	24011102	Res, Chip	1kΩ J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
RL041	24011102	Res, Chip	1kΩ
RL042	24011102	Res, Chip	1kΩ
RL043	24011102	Res, Chip	1kΩ
RL044	24011101	Res, Chip	100Ω
RL045	24011102	Res, Chip	1kΩ
RL046	24011102	Res, Chip	1kΩ
RL047	24011102	Res, Chip	1kΩ
RL048	24011102	Res, Chip	1kΩ
RL049	24011101	Res, Chip	100Ω
RL050	24011101	Res, Chip	100Ω
RL051	24011102	Res, Chip	1kΩ
RL052	24011102	Res, Chip	1kΩ
RL053	24011101	Res, Chip	100Ω
RL054	24011101	Res, Chip	100Ω
RL055	24011102	Res, Chip	1kΩ
RL056	24011102	Res, Chip	1kΩ
RL057	24011102	Res, Chip	1kΩ
RL058	24011102	Res, Chip	1kΩ
RL059	24011102	Res, Chip	1kΩ
RL060	24011102	Res, Chip	1kΩ
RL061	24011102	Res, Chip	1kΩ
RL062	24011102	Res, Chip	1kΩ
RL063	24011102	Res, Chip	1kΩ
RL064	24011102	Res, Chip	1kΩ
RL065	24011102	Res, Chip	1kΩ
RL066	24011102	Res, Chip	1kΩ
RL067	24011102	Res, Chip	1kΩ
RL068	24011102	Res, Chip	1kΩ
RL069	24011102	Res, Chip	1kΩ
RL070	24011102	Res, Chip	1kΩ
RL071	24011102	Res, Chip	1kΩ
RL072	24011102	Res, Chip	1kΩ
RL073	24011102	Res, Chip	1kΩ
RL074	24011472	Res, Chip	4.7kΩ
RL075	24011472	Res, Chip	4.7kΩ
RL076	24011302	Res, Chip	3kΩ
RL077	24011102	Res, Chip	1kΩ
RL078	24011123	Res, Chip	12kΩ
RL079	24011123	Res, Chip	12kΩ
RL080	24011123	Res, Chip	12kΩ
RL081	24011123	Res, Chip	12kΩ
RL082	24011123	Res, Chip	12kΩ
RL083	24011103	Res, Chip	10kΩ
RL084	24011472	Res, Chip	4.7kΩ
RL085	24011103	Res, Chip	10kΩ
RL087	24011103	Res, Chip	10kΩ
RL088	24011472	Res, Chip	4.7kΩ
RL089	24011472	Res, Chip	4.7kΩ
RL090	24011103	Res, Chip	10kΩ
RL092	24011103	Res, Chip	10kΩ
RL093	24011103	Res, Chip	10kΩ
RL094	24011103	Res, Chip	10kΩ
RL095	24011103	Res, Chip	10kΩ
RL096	24011103	Res, Chip	10kΩ
RL097	24011102	Res, Chip	1kΩ
RL098	24011472	Res, Chip	4.7kΩ
RL099	24011104	Res, Chip	100kΩ
RL100	24011104	Res, Chip	100kΩ
RL101	24011103	Res, Chip	10kΩ
RL102	24011103	Res, Chip	10kΩ
RL103	24011103	Res, Chip	10kΩ
RL104	24011103	Res, Chip	10kΩ
RL105	24011103	Res, Chip	10kΩ
RL106	24011103	Res, Chip	10kΩ
RL107	24011103	Res, Chip	10kΩ
RL108	24011103	Res, Chip	10kΩ
RL109	24011471	Res, Chip	470Ω
RL110	24011471	Res, Chip	470Ω
RL111	24011471	Res, Chip	470Ω
RL112	24011471	Res, Chip	470Ω
RL113	24011471	Res, Chip	470Ω
RL114	24011471	Res, Chip	470Ω
RL117	24011102	Res, Chip	1kΩ
RL118	24011102	Res, Chip	1kΩ
RL119	24011102	Res, Chip	1kΩ

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION			
RL120	24011102	Res, Chip	1kΩ	J 1/20W	QX033	70129738	IC	PQ20VZ1U
RL121	24011102	Res, Chip	1kΩ	J 1/20W	QX034	70129738	IC	PQ20VZ1U
RL123	24011102	Res, Chip	1kΩ	J 1/20W	QX035	70200430	IC	RNSVD27A
RL125	24011103	Res, Chip	10kΩ	J 1/20W	QX036	A6030620	IC	TC7S04F
RL126	24011103	Res, Chip	10kΩ	J 1/20W	QX037	A6030630	IC	TC7S08F
RL127	24011103	Res, Chip	10kΩ	J 1/20W	QX038	A6030630	IC	TC7S08F
RL128	24011103	Res, Chip	10kΩ	J 1/20W	QX201	23906219	IC	CXA3026Q
RL129	24011103	Res, Chip	10kΩ	J 1/20W	QX202	23906235	IC	MB814265-60
RL131	24011103	Res, Chip	10kΩ	J 1/20W	QX203	23906235	IC	MB814265-60
RL140	24011472	Res, Chip	4.7kΩ	J 1/20W	QX204	B0508347	IC	TC203E2651AF
RL141	24011104	Res, Chip	100kΩ	J 1/20W	QX205	23906235	IC	MB814265-60
RL142	24011102	Res, Chip	1kΩ	J 1/20W	QX206	23906235	IC	MB814265-60
RL143	24011202	Res, Chip	2kΩ	J 1/20W	QX207	23906228	IC	EPM7064TLP51
RL144	24011302	Res, Chip	3kΩ	J 1/20W	QX208	23906221	IC	MB40950PFQ
RL145	24011474	Res, Chip	470kΩ	J 1/20W	QX401	23906219	IC	CXA3026Q
		- MISCELLANEOUS -			QX402	23906235	IC	MB814265-60
J501A	23969946	Tape			QX403	23906235	IC	MB814265-60
JF02A	23969946	Tape			QX404	B0508347	IC	TC203E2651AF
JL01A	23969946	Tape			QX405	23906235	IC	MB814265-60
JL99A	23969946	Tape			QX406	23906235	IC	MB814265-60
P301	23903046	Socket	1mm, 50P		QX407	23906228	IC	EPM7064TLP51
P401	23903051	Socket	FPC/FFC		QX408	23906221	IC	MB40950PFQ
P501	23903051	Socket	FPC/FFC		QX601	23906219	IC	CXA3026Q
P601	23903051	Socket	FPC/FFC		QX602	23906235	IC	MB814265-60
PL003	70164729	Plug	3P, 1.25mm		QX603	23906235	IC	MB814265-60
PL004	23903049	Socket	FPC/FFC		QX604	B0508347	IC	TC203E2651AF
PL006	23368674	Plug	2P		QX605	23906235	IC	MB814265-60
PL009	23368675	Plug	3P		QX606	23906235	IC	MB814265-60
PL010	23903053	Socket	FPC/FFC		QX607	23906228	IC	EPM7064TLP51
SL001	23344088	Push Switch			QX608	23906221	IC	MB40950PFQ
SL002	23344088	Push Switch						- TRANSISTORS -
SL003	23344088	Push Switch			QX022	A6549570	Transistor, Chip	2SA1586-Y
SL004	23344088	Push Switch			QX023	A6335470	Transistor, Chip	2SC2712-Y
SL005	23344088	Push Switch			QX024	A6335470	Transistor, Chip	2SC2712-Y
SL006	23344088	Push Switch			QX025	A6365620	Transistor, Chip	2SC4116-Y
SL007	23344088	Push Switch			QX026	A6541130	Transistor, Chip	2SA1162-Y
SL008	23344088	Push Switch			QX027	A6541130	Transistor, Chip	2SA1162-Y
XL001	23153752	Crystal			QX029	A6365620	Transistor, Chip	2SC4116-Y
Z951	23118367	IC Protector	ICP-N25		QX210	A6365620	Transistor, Chip	2SC4116-Y
ZF001	A8662610	Photo Interrupter	TLP121		QX409	A6365620	Transistor, Chip	2SC4116-Y
ZF002	A8662610	Photo Interrupter	TLP121		QX410	A6365620	Transistor, Chip	2SC4116-Y
ZL005	23144597	Thermal Lead	OHDS5D-100B		QX609	A6365620	Transistor, Chip	2SC4116-Y
■U0015	23781069	PC Board Assy	F-REM		QX610	A6365620	Transistor, Chip	2SC4116-Y
		- DIODES -						- DIODES -
DL301	23118313	Diode, Chip	RD6. 2M		DX001	A7150800	Diode, Chip	ISS187
DL302	23118313	Diode, Chip	RD6. 2M		DX002	23118313	Diode, Chip	RD6. 2M
		- CAPACITORS -						- COILS -
CL301	24619102	Cap, Chip	47μF	M 16V	LX003	23103793	Coil, Chip	MMZ2012S121A
		- RESISTORS -			LX004	23103793	Coil, Chip	MMZ2012S121A
RF030	24019424				LX005	23103793	Coil, Chip	MMZ2012S121A
RL301	24011101	Res, Chip	100Ω	J 1/20W	LX007	23103793	Coil, Chip	MMZ2012S121A
		- MISCELLANEOUS -			LX008	23103793	Coil, Chip	MMZ2012S121A
ZL301	23904946	Photo Reciever	RPM-676CBR-S		LX009	23103880	Coil, Choke	TEM2011Y
■U002	23781070	PC Board Assy	Digital		LX010	23103793	Coil, Chip	MMZ2012S121A
		- INTEGRATED CIRCUITS -			LX011	23103793	Coil, Chip	MMZ2012S121A
QX001	A6030107	IC	TC7S14F		LX012	23103793	Coil, Chip	MMZ2012S121A
QX002	A6030620	IC	TC7S04F		LX013	23103880	Coil, Choke	TEM2011Y
QX003	23906210	IC	CDD0016AM		LX014	23103793	Coil, Chip	MMZ2012S121A
QX004	B0638318	IC	TC160G54AF-1		LX015	23103793	Coil, Chip	MMZ2012S121A
QX008	23905013	IC	TLC2932		LX016	23103793	Coil, Chip	MMZ2012S121A
QX009	23906227	IC	EPM7160TLP51		LX017	23103793	Coil, Chip	MMZ2012S121A
QX011	23906234	IC	M62320FP		LX018	23103793	Coil, Chip	MMZ2012S121A
QX012	23906234	IC	M62320FP		LX019	23103793	Coil, Chip	MMZ2012S121A
QX017	A6030640	IC	TC7S32F		LX020	23103793	Coil, Chip	MMZ2012S121A
QX018	70129738	IC	PQ20VZ1U		LX201	23103793	Coil, Chip	MMZ2012S121A
QX019	70129738	IC	PQ20VZ1U		LX202	23103793	Coil, Chip	MMZ2012S121A
QX020	70129738	IC	PQ20VZ1U		LX203	23103793	Coil, Chip	MMZ2012S121A
QX021	70129738	IC	PQ20VZ1U		LX204	23103793	Coil, Chip	MMZ2012S121A
QX028	23906218	IC	CXA3106Q		LX401	23103793	Coil, Chip	MMZ2012S121A
QX029	23905013	IC	TLC2932		LX402	23103793	Coil, Chip	MMZ2012S121A
QX030	A6030107	IC	TC7S14F		LX403	23103793	Coil, Chip	MMZ2012S121A
QX031	A6030107	IC	TC7S14F		LX404	23103793	Coil, Chip	MMZ2012S121A
QX032	70129738	IC	PQ20VZ1U		LX601	23103793	Coil, Chip	MMZ2012S121A
					LX602	23103793	Coil, Chip	MMZ2012S121A
					LX603	23103793	Coil, Chip	MMZ2012S121A

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION	
LX604	23103793	Coil, Chip - CAPACITORS -	MMZ2012S121A	CX094	24092538	Cap, Chip
CX001	24092538	Cap, Chip	1μF	Z 10V	1μF	
CX002	24092538	Cap, Chip	1μF	Z 10V	Z 10V	
CX003	24092538	Cap, Chip	1μF	Z 10V	33μF	
CX004	24092538	Cap, Chip	1μF	Z 10V	M 10V	
CX005	24092538	Cap, Chip	1μF	Z 10V	33μF	
CX006	24092538	Cap, Chip	1μF	Z 10V	Z 10V	
CX007	24092538	Cap, Chip	1μF	Z 10V	1μF	
CX008	24092538	Cap, Chip	1μF	Z 10V	Z 10V	
CX009	24092538	Cap, Chip	1μF	Z 10V	1μF	
CX010	24092538	Cap, Chip	1μF	Z 10V	Z 10V	
CX011	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX012	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX013	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX014	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX015	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX016	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX017	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX018	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX019	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX020	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX021	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX031	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX032	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX033	24092399	Cap, Chip	0.1μF	Z 16V	J 50V	
CX034	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX035	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX036	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX037	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX038	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX039	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX040	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX041	24092538	Cap, Chip	1μF	Z 10V	J 50V	
CX042	24092538	Cap, Chip	1μF	Z 10V	100pF	
CX044	24092538	Cap, Chip	1μF	Z 10V	0.01μF	
CX045	24092538	Cap, Chip	1μF	Z 10V	K 25V	
CX046	24092538	Cap, Chip	1μF	Z 10V	0.01μF	
CX049	24108101	Cap, Chip	100pF	J 50V	K 25V	
CX050	24108101	Cap, Chip	100pF	J 50V	100pF	
CX052	24108101	Cap, Chip	100pF	J 50V	1200pF	
CX053	24108101	Cap, Chip	100pF	J 50V	K 16V	
CX054	24108101	Cap, Chip	100pF	J 50V	0.22μF	
CX055	24108101	Cap, Chip	100pF	J 50V	1μF	
CX056	24108101	Cap, Chip	100pF	J 50V	Z 10V	
CX057	24108101	Cap, Chip	100pF	J 50V	1μF	
CX059	24108101	Cap, Chip	100pF	J 50V	Z 10V	
CX060	24108101	Cap, Chip	100pF	J 50V	1μF	
CX061	24108101	Cap, Chip	100pF	J 50V	Z 10V	
CX062	24108101	Cap, Chip	100pF	J 50V	1μF	
CX063	24108101	Cap, Chip	100pF	J 50V	Z 10V	
CX064	24108101	Cap, Chip	100pF	J 50V	1μF	
CX065	24108101	Cap, Chip	100pF	J 50V	Z 10V	
CX066	24108101	Cap, Chip	100pF	J 50V	1μF	
CX067	24108101	Cap, Chip	100pF	J 50V	Z 10V	
CX068	24108101	Cap, Chip	100pF	J 50V	0.1μF	
CX069	24108101	Cap, Chip	100pF	J 50V	K 25V	
CX072	24108101	Cap, Chip	100pF	J 50V	100pF	
CX073	24108101	Cap, Chip	100pF	J 50V	J 50V	
CX074	24108101	Cap, Chip	100pF	J 50V	33μF	
CX076	24108101	Cap, Chip	100pF	J 50V	M 10V	
CX077	24108101	Cap, Chip	100pF	J 50V	33μF	
CX078	24108101	Cap, Chip	100pF	J 50V	M 10V	
CX079	24108101	Cap, Chip	100pF	J 50V	33μF	
CX080	24108101	Cap, Chip	100pF	J 50V	M 10V	
CX081	24092538	Cap, Chip	1μF	Z 10V	33μF	
CX083	24088080	Cap, Chip	33μF	M 10V	M 10V	
CX084	24108101	Cap, Chip	100pF	J 50V	1μF	
CX085	24088080	Cap, Chip	33μF	M 10V	Z 10V	
CX086	24092538	Cap, Chip	1μF	Z 10V	0.1μF	
CX087	24092538	Cap, Chip	1μF	Z 10V	K 25V	
CX088	24088080	Cap, Chip	33μF	M 10V	Z 10V	
CX089	24088080	Cap, Chip	33μF	M 10V	10μF	
CX090	24092538	Cap, Chip	1μF	Z 10V	M 10V	
CX091	24092538	Cap, Chip	1μF	Z 10V	1μF	
CX092	24088080	Cap, Chip	33μF	M 10V	Z 10V	
CX093	24088080	Cap, Chip	33μF	M 10V	1μF	

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
CX650	24092538	Cap, Chip	1 μ F
CX651	24092538	Cap, Chip	1 μ F
CX652	24092399	Cap, Chip	0.1 μ F
CX657	24092538	Cap, Chip	1 μ F
	- RESISTORS -		
RX004	24011473	Res, Chip	47k Ω
RX012	24011470	Res, Chip	47 Ω
RX013	24011153	Res, Chip	15k Ω
RX014	24011331	Res, Chip	330 Ω
RX015	24011332	Res, Chip	3. 3k Ω
RX016	24011470	Res, Chip	47 Ω
RX017	24011470	Res, Chip	47 Ω
RX018	24011101	Res, Chip	100 Ω
RX019	24011101	Res, Chip	100 Ω
RX021	24011470	Res, Chip	47 Ω
RX022	24011470	Res, Chip	47 Ω
RX023	24011470	Res, Chip	47 Ω
RX024	24011470	Res, Chip	47 Ω
RX025	24011470	Res, Chip	47 Ω
RX026	24011470	Res, Chip	47 Ω
RX027	24011470	Res, Chip	47 Ω
RX028	24011470	Res, Chip	47 Ω
RX029	24011470	Res, Chip	47 Ω
RX030	24011470	Res, Chip	47 Ω
RX031	24011470	Res, Chip	47 Ω
RX032	24011470	Res, Chip	47 Ω
RX033	24011470	Res, Chip	47 Ω
RX034	24011470	Res, Chip	47 Ω
RX035	24011470	Res, Chip	47 Ω
RX036	24011470	Res, Chip	47 Ω
RX037	24011470	Res, Chip	47 Ω
RX038	24011470	Res, Chip	47 Ω
RX039	24011470	Res, Chip	47 Ω
RX040	24011470	Res, Chip	47 Ω
RX041	24011470	Res, Chip	47 Ω
RX045	24011470	Res, Chip	47 Ω
RX046	24011470	Res, Chip	47 Ω
RX047	24011100	Res, Chip	10 Ω
RX049	24011102	Res, Chip	1k Ω
RX050	24011101	Res, Chip	100 Ω
RX051	24011101	Res, Chip	100 Ω
RX052	24011101	Res, Chip	100 Ω
RX053	24011470	Res, Chip	47 Ω
RX054	24011470	Res, Chip	47 Ω
RX055	24011470	Res, Chip	47 Ω
RX056	24011470	Res, Chip	47 Ω
RX057	24011101	Res, Chip	100 Ω
RX058	24872101	Res, Chip	100 Ω
RX059	24011302	Res, Chip	3k Ω
RX060	24011102	Res, Chip	1k Ω
RX061	24011302	Res, Chip	3k Ω
RX062	24011102	Res, Chip	1k Ω
RX063	24011302	Res, Chip	3k Ω
RX064	24011102	Res, Chip	1k Ω
RX065	24011152	Res, Chip	1. 5k Ω
RX066	24011102	Res, Chip	1k Ω
RX067	24011101	Res, Chip	100 Ω
RX068	24011101	Res, Chip	100 Ω
RX069	24011101	Res, Chip	100 Ω
RX070	24011101	Res, Chip	100 Ω
RX071	24011101	Res, Chip	100 Ω
RX072	24011101	Res, Chip	100 Ω
RX073	24011101	Res, Chip	100 Ω
RX074	24011101	Res, Chip	100 Ω
RX075	24011101	Res, Chip	100 Ω
RX076	24011101	Res, Chip	100 Ω
RX077	24011101	Res, Chip	100 Ω
RX078	24011101	Res, Chip	100 Ω
RX079	24011101	Res, Chip	100 Ω
RX080	24011470	Res, Chip	47 Ω
RX081	24011470	Res, Chip	47 Ω
RX082	24011470	Res, Chip	47 Ω
RX083	24011101	Res, Chip	100 Ω
RX084	24011101	Res, Chip	100 Ω
RX085	24011101	Res, Chip	100 Ω

LOCATION NUMBER	PART NUMBER	DESCRIPTION	
RX086	24011101	Res, Chip	100 Ω
RX087	24011101	Res, Chip	100 Ω
RX088	24011101	Res, Chip	100 Ω
RX089	24011101	Res, Chip	100 Ω
RX090	24011101	Res, Chip	100 Ω
RX091	24011101	Res, Chip	100 Ω
RX092	24011470	Res, Chip	47 Ω
RX094	24011151	Res, Chip	150 Ω
RX096	24011561	Res, Chip	560 Ω
RX097	24011100	Res, Chip	10 Ω
RX098	24011100	Res, Chip	10 Ω
RX099	24011221	Res, Chip	220 Ω
RX100	24011221	Res, Chip	220 Ω
RX101	24011221	Res, Chip	220 Ω
RX102	24011470	Res, Chip	47 Ω
RX103	24011470	Res, Chip	47 Ω
RX104	24011911	Res, Chip	910 Ω
RX105	24011472	Res, Chip	4. 7k Ω
RX106	24011302	Res, Chip	3k Ω
RX107	24011202	Res, Chip	2k Ω
RX108	24011100	Res, Chip	10 Ω
RX109	24011104	Res, Chip	100k Ω
RX110	24011332	Res, Chip	3. 3k Ω
RX111	24000424	Res, Chip	1. 6k Ω
RX112	24011470	Res, Chip	47 Ω
RX113	24011332	Res, Chip	3. 3k Ω
RX114	24011331	Res, Chip	330 Ω
RX115	24011331	Res, Chip	330 Ω
RX116	24011470	Res, Chip	47 Ω
RX117	24011103	Res, Chip	10k Ω
RX119	24011470	Res, Chip	47 Ω
RX120	24011152	Res, Chip	1. 5k Ω
RX121	24011102	Res, Chip	1k Ω
RX122	24011302	Res, Chip	3k Ω
RX123	24011102	Res, Chip	1k Ω
RX124	24011302	Res, Chip	3k Ω
RX125	24011102	Res, Chip	1k Ω
RX126	24011561	Res, Chip	560 Ω
RX127	24011561	Res, Chip	560 Ω
RX128	24011470	Res, Chip	47 Ω
RX133	24011102	Res, Chip	1k Ω
RX201	24011470	Res, Chip	47 Ω
RX204	24011221	Res, Chip	220 Ω
RX205	24011221	Res, Chip	220 Ω
RX206	24011103	Res, Chip	10k Ω
RX207	24011103	Res, Chip	10k Ω
RX208	24011103	Res, Chip	10k Ω
RX209	24011103	Res, Chip	10k Ω
RX210	24011103	Res, Chip	10k Ω
RX211	24011103	Res, Chip	10k Ω
RX212	24011103	Res, Chip	10k Ω
RX213	24011103	Res, Chip	10k Ω
RX214	24011103	Res, Chip	10k Ω
RX215	24011103	Res, Chip	10k Ω
RX216	24011103	Res, Chip	10k Ω
RX219	24011103	Res, Chip	10k Ω
RX220	24011221	Res, Chip	220 Ω
RX221	24011221	Res, Chip	220 Ω
RX222	24011102	Res, Chip	1k Ω
RX223	24011102	Res, Chip	1k Ω
RX224	24011102	Res, Chip	1k Ω
RX225	24011102	Res, Chip	1k Ω
RX401	24011470	Res, Chip	47 Ω
RX406	24011103	Res, Chip	10k Ω
RX407	24011103	Res, Chip	10k Ω
RX408	24011103	Res, Chip	10k Ω
RX409	24011103	Res, Chip	10k Ω
RX410	24011103	Res, Chip	10k Ω
RX411	24011103	Res, Chip	10k Ω
RX412	24011103	Res, Chip	10k Ω
RX413	24011103	Res, Chip	10k Ω
RX414	24011103	Res, Chip	10k Ω
RX415	24011103	Res, Chip	10k Ω
RX416	24011103	Res, Chip	10k Ω
RX419	24011103	Res, Chip	10k Ω

LOCATION	PART NUMBER	DESCRIPTION	LOCATION	PART NUMBER	DESCRIPTION
RX422	24011102	Res, Chip	1kΩ	J 1/20W	QV056 A6030620 IC TC7S04F
RX423	24011102	Res, Chip	1kΩ	J 1/20W	QV057 23906234 IC M62320FP
RX424	24011102	Res, Chip	1kΩ	J 1/20W	QV058 A6030620 IC TC7S04F
RX425	24011102	Res, Chip	1kΩ	J 1/20W	- TRANSISTORS -
RX601	24011470	Res, Chip	47Ω	J 1/20W	QA07 A6335470 Transistor, Chip 2SC2712-Y
RX606	24011103	Res, Chip	10kΩ	J 1/20W	QA08 A6004020 Transistor, Chip RN1402
RX607	24011103	Res, Chip	10kΩ	J 1/20W	QB013 A6335470 Transistor, Chip 2SC2712-Y
RX608	24011103	Res, Chip	10kΩ	J 1/20W	QB014 A6335470 Transistor, Chip 2SC2712-Y
RX609	24011103	Res, Chip	10kΩ	J 1/20W	QB015 23314062 Transistor 2SC3356-T2B
RX610	24011103	Res, Chip	10kΩ	J 1/20W	QB016 23314062 Transistor 2SC3356-T2B
RX611	24011103	Res, Chip	10kΩ	J 1/20W	QB017 23314062 Transistor 2SC3356-T2B
RX612	24011103	Res, Chip	10kΩ	J 1/20W	QB026 A6004020 Transistor, Chip RN1402
RX613	24011103	Res, Chip	10kΩ	J 1/20W	QB027 A6004020 Transistor, Chip RN1402
RX614	24011103	Res, Chip	10kΩ	J 1/20W	QB028 A6004020 Transistor, Chip RN1402
RX615	24011103	Res, Chip	10kΩ	J 1/20W	QB029 A6004020 Transistor, Chip RN1402
RX616	24011103	Res, Chip	10kΩ	J 1/20W	QB030 23314062 Transistor 2SC3356-T2B
RX619	24011103	Res, Chip	10kΩ	J 1/20W	QB031 23314062 Transistor 2SC3356-T2B
RX622	24011102	Res, Chip	1kΩ	J 1/20W	QB032 23314062 Transistor 2SC3356-T2B
RX623	24011102	Res, Chip	1kΩ	J 1/20W	QV013 A6365620 Transistor, Chip 2SC4116-Y
RX624	24011102	Res, Chip	1kΩ	J 1/20W	QV014 A6365620 Transistor, Chip 2SC4116-Y
RX625	24011102	Res, Chip	1kΩ	J 1/20W	QV015 A6365620 Transistor, Chip 2SC4116-Y
- MISCELLANEOUS -					
JX03A	23969946	Tape			QV016 A6365620 Transistor, Chip 2SC4116-Y
M999B	23969946	Tape			QV017 A6365620 Transistor, Chip 2SC4116-Y
PX001	23368671	Plug	50P, 1mm		QV018 A6549570 Transistor, Chip 2SA1586-Y
PX005	23903048	Socket	FPC/FFC		QV019 A6365620 Transistor, Chip 2SC4116-Y
PX006	23368671	Plug	50P, 1mm		QV020 A6549570 Transistor, Chip 2SA1586-Y
ZX001	23103823	Filter	TEM2027D		QV021 A6365620 Transistor, Chip 2SC4116-Y
ZX002	23153492	Crystal	SG82C32M		QV022 A6365620 Transistor, Chip 2SC4116-Y
ZX003	23153491	Crystal	SG81C42M		QV023 A6365620 Transistor, Chip 2SC4116-Y
ZX004	23103823	Filter	TEM2027D		QV024 A6365620 Transistor, Chip 2SC4116-Y
ZX006	23904946	Photo Reciever	RPM-676CBR-S		QV025 A6365620 Transistor, Chip 2SC4116-Y
ZX202	23103823	Filter	TEM2027D		QV026 A6365620 Transistor, Chip 2SC4116-Y
ZX203	23103823	Filter	TEM2027D		QV027 A6365620 Transistor, Chip 2SC4116-Y
ZX204	23103823	Filter	TEM2027D		QV028 A6365620 Transistor, Chip 2SC4116-Y
ZX402	23103823	Filter	TEM2027D		QV029 A6365620 Transistor, Chip 2SC4116-Y
ZX403	23103823	Filter	TEM2027D		QV030 A6549570 Transistor, Chip 2SA1586-Y
ZX404	23103823	Filter	TEM2027D		QV031 A6365620 Transistor, Chip 2SC4116-Y
ZX602	23103823	Filter	TEM2027D		QV041 A6365620 Transistor, Chip 2SC4116-Y
ZX603	23103823	Filter	TEM2027D		QV042 A6365620 Transistor, Chip 2SC4116-Y
ZX604	23103823	Filter	TEM2027D		QV059 A6365620 Transistor, Chip 2SC4116-Y
- DIODES -					
■U0031	23781071	PC Board Assy	Video		DB001 A7150800 Diode, Chip 1SS187
- INTEGRATED CIRCUITS -					
QB001	70129738	IC	PQ20VZ1U		DB002 23118315 Diode, Zener RD2. OM-T1BB
QB002	23906121	IC	LM2991SX		DB003 A7152775 Diode, Chip 1SS226
QB003	A6030620	IC	TC7S04F		DB004 A7152775 Diode, Chip 1SS226
QB004	23906217	IC	MAX4121CSA		DB005 A7152775 Diode, Chip 1SS226
QB005	23906217	IC	MAX4121CSA		DB006 23118313 Diode, Chip RD6. 2M
QB006	23906217	IC	MAX4121CSA		DB007 23118313 Diode, Chip RD6. 2M
QB007	23906216	IC	MAX497CSE		DB008 23118313 Diode, Chip RD6. 2M
QB008	B0484924	IC	TC74HCT240AF		DB009 23118313 Diode, Chip RD6. 2M
QB009	A6030620	IC	TC7S04F		DB010 23118313 Diode, Chip RD6. 2M
QB010	A6030630	IC	TC7S08F		DB011 A7152775 Diode, Chip 1SS226
QB011	23906215	IC	M52348FP		DB012 A7152775 Diode, Chip 1SS226
QB012	23906214	IC	M52347FP		DB013 A7152775 Diode, Chip 1SS226
QB013	A6030630	IC	TC7S08F		DB014 23118313 Diode, Chip RD6. 2M
QB020	A6030630	IC	TC7S08F		DB015 23118313 Diode, Chip RD6. 2M
QB024	23905532	IC	M52320SP		DB016 A7150800 Diode, Chip 1SS187
QB025	23905091	IC	CXA1315M		DB017 A7150800 Diode, Chip 1SS187
QL001	70200127	IC	UPD4721GS		DB018 23118287 Diode, Chip RD12M
QV001	23906213	IC	CXA1855Q		DB019 23118313 Diode, Chip RD6. 2M
QV002	B0410688	IC	TC9090AN		DB020 23118313 Diode, Chip RD6. 2M
QV003	70128490	IC	MM1031M		DB021 23118313 Diode, Chip RD6. 2M
QV005	23905459	IC	TDA9141		DB022 23118313 Diode, Chip RD6. 2M
QV006	23905460	IC	TDA4665T		DL001 23118293 Diode, Chip RD6. 2M
QV007	23905462	IC	TDA4672		DL002 23118293 Diode, Zener RD10MB2
QV008	23905461	IC	TDA4780		DL003 23118293 Diode, Zener RD10MB2
QV045	23905091	IC	CXA1315M		DL004 23118293 Diode, Zener RD10MB2
QV050	70129738	IC	PQ20VZ1U		DL005 23118293 Diode, Zener RD10MB2
QV051	70129738	IC	PQ20VZ1U		DL006 23118293 Diode, Zener RD10MB2
QV052	70129738	IC	PQ20VZ1U		DL007 23118293 Diode, Zener RD10MB2
QV053	70129738	IC	PQ20VZ1U		DL008 23118293 Diode, Zener RD10MB2
QV054	70129738	IC	PQ20VZ1U		DL009 23118293 Diode, Zener RD10MB2
QV055	70129738	IC	PQ20VZ1U		DV001 23118287 Diode, Chip RD12M
					DV002 23118287 Diode, Chip RD12M

LOCATION	PART			DESCRIPTION
NUMBER	NUMBER			
DV003	23118287	Diode, Chip	RD12M	
DV004	23118293	Diode, Zener	RD10MB2	
DV005	23118307	Diode, Zener, Chip	RD5.1MB2	
DV006	23118287	Diode, Chip	RD12M	
DV007	23118313	Diode, Chip	RD6.2M	
DV008	23118313	Diode, Chip	RD6.2M	
DV009	23118313	Diode, Chip	RD6.2M	
DV010	23118313	Diode, Chip	RD6.2M	
DV011	23118313	Diode, Chip	RD6.2M	
DV012	23118313	Diode, Chip	RD6.2M	
DV013	23118313	Diode, Chip	RD6.2M	
DV014	23118313	Diode, Chip	RD6.2M	
DV015	23118313	Diode, Chip	RD6.2M	
DV016	23118287	Diode, Chip	RD12M	
DV017	23118281	Diode, Chip	RD15MB2	
DV018	23118313	Diode, Chip	RD6.2M	
	- COILS -			
LB001	23103880	Coil, Choke	TEM2011Y	
LB002	23103880	Coil, Choke	TEM2011Y	
LV001	23245839	Coil, Chip	TRF4560CB	
LV002	23245832	Coil, Chip	TRF4150CB	
LV003	23245835	Coil, Chip	TRF4270CB	
LV004	23245835	Coil, Chip	TRF4270CB	
LV005	23245828	Coil, Chip	TRF46R8CB	
LV006	23245835	Coil, Chip	TRF4270CB	
LV007	23245828	Coil, Chip	TRF46R8CB	
LV008	23245837	Coil, Chip	TRF41ROCB	
LV009	23245828	Coil, Chip	TRF46R8CB	
LV010	23245830	Coil, Chip	TRF4100CB	
	- CAPACITORS -			
CA01	24619113	Cap, Chip	1μF	M 50V
CA02	24619113	Cap, Chip	1μF	M 50V
CA023	24092399	Cap, Chip	0.1μF	Z 16V
CA03	24619113	Cap, Chip	1μF	M 50V
CA04	24619113	Cap, Chip	1μF	M 50V
CA26	24619113	Cap, Chip	1μF	M 50V
CB001	24619102	Cap, Chip	47μF	M 16V
CB002	24088953	Cap, Chip	33μF	M 16V
CB003	24619106	Cap, Chip	33μF	M 25V
CB004	24088953	Cap, Chip	33μF	M 16V
CB005	24092399	Cap, Chip	0.1μF	Z 16V
CB006	24619088	Cap, Electrolytic	10μF	M 16V
CB007	24619088	Cap, Electrolytic	10μF	M 16V
CB008	24619088	Cap, Electrolytic	10μF	M 16V
CB009	24109102	Cap, Chip	1000pF	K 50V
CB010	24092399	Cap, Chip	0.1μF	Z 16V
CB011	24109102	Cap, Chip	1000pF	K 50V
CB012	24092399	Cap, Chip	0.1μF	Z 16V
CB013	24109102	Cap, Chip	1000pF	K 50V
CB014	24092399	Cap, Chip	0.1μF	Z 16V
CB015	24109102	Cap, Chip	1000pF	K 50V
CB016	24092399	Cap, Chip	0.1μF	Z 16V
CB017	24109102	Cap, Chip	1000pF	K 50V
CB018	24092399	Cap, Chip	0.1μF	Z 16V
CB019	24109102	Cap, Chip	1000pF	K 50V
CB020	24092399	Cap, Chip	0.1μF	Z 16V
CB024	24092399	Cap, Chip	0.1μF	Z 16V
CB025	24092399	Cap, Chip	0.1μF	Z 16V
CB026	24092399	Cap, Chip	0.1μF	Z 16V
CB027	24092399	Cap, Chip	0.1μF	Z 16V
CB028	24619102	Cap, Chip	47μF	M 16V
CB029	24619102	Cap, Chip	47μF	M 16V
CB030	24619100	Cap, Chip	10μF	M 16V
CB031	24092399	Cap, Chip	0.1μF	Z 16V
CB032	24092399	Cap, Chip	0.1μF	Z 16V
CB037	24092399	Cap, Chip	0.1μF	Z 16V
CB038	24109103	Cap, Chip	0.01μF	K 25V
CB039	24619102	Cap, Chip	47μF	M 16V
CB040	24109103	Cap, Chip	0.01μF	K 25V
CB041	24619102	Cap, Chip	47μF	M 16V
CB042	24109103	Cap, Chip	0.01μF	K 25V
CB043	24619102	Cap, Chip	47μF	M 16V
CB044	24619100	Cap, Chip	10μF	M 16V
CB045	24109103	Cap, Chip	0.01μF	K 25V
CB046	24619100	Cap, Chip	10μF	M 16V

LOCATION	PART			DESCRIPTION
NUMBER	NUMBER			
CB047	24109103	Cap, Chip	0.01μF	K 25V
CB048	24619100	Cap, Chip	10μF	M 16V
CB049	24109103	Cap, Chip	0.01μF	K 25V
CB050	24109103	Cap, Chip	0.01μF	K 25V
CB051	24619102	Cap, Chip	47μF	M 16V
CB052	24109103	Cap, Chip	0.01μF	K 25V
CB053	24619102	Cap, Chip	47μF	M 16V
CB054	24109103	Cap, Chip	0.01μF	K 25V
CB055	24619102	Cap, Chip	47μF	M 16V
CB056	24109103	Cap, Chip	0.01μF	K 25V
CB057	24109103	Cap, Chip	0.01μF	K 25V
CB058	24109103	Cap, Chip	0.01μF	K 25V
CB059	24619102	Cap, Chip	47μF	M 16V
CB060	24109103	Cap, Chip	0.01μF	K 25V
CB061	24109103	Cap, Chip	0.01μF	K 25V
CB062	24109103	Cap, Chip	0.01μF	K 25V
CB063	24109103	Cap, Chip	0.01μF	K 25V
CB065	24109103	Cap, Chip	0.01μF	K 25V
CB066	24619102	Cap, Chip	47μF	M 16V
CB067	24109103	Cap, Chip	0.01μF	K 25V
CB068	24619102	Cap, Chip	47μF	M 16V
CB069	24109103	Cap, Chip	0.01μF	K 25V
CB070	24619102	Cap, Chip	47μF	M 16V
CB071	24109103	Cap, Chip	0.01μF	K 25V
CB072	24109103	Cap, Chip	0.01μF	K 25V
CB073	24619103	Cap, Chip	4.7μF	M 25V
CB074	24619103	Cap, Chip	4.7μF	M 25V
CB075	24619103	Cap, Chip	4.7μF	M 25V
CB076	24619103	Cap, Chip	4.7μF	M 25V
CB077	24619113	Cap, Chip	1μF	M 50V
CB078	24619100	Cap, Chip	10μF	M 16V
CB079	24108221	Cap, Chip	220pF	J 50V
CB080	24105101	Cap, Chip	100pF	J 50V
CB081	24619102	Cap, Chip	47μF	M 16V
CB082	24109103	Cap, Chip	0.01μF	K 25V
CB083	24092399	Cap, Chip	0.1μF	Z 16V
CB084	24092399	Cap, Chip	0.1μF	Z 16V
CB085	24619103	Cap, Chip	4.7μF	M 25V
CB086	24619100	Cap, Chip	10μF	M 16V
CB087	24619100	Cap, Chip	10μF	M 16V
CB088	24109103	Cap, Chip	0.01μF	K 25V
CB089	24109103	Cap, Chip	0.01μF	K 25V
CB090	24619100	Cap, Chip	10μF	M 16V
CB091	24109103	Cap, Chip	0.01μF	K 25V
CB092	24109103	Cap, Chip	0.01μF	K 25V
CB093	24619100	Cap, Chip	10μF	M 16V
CB094	24109103	Cap, Chip	0.01μF	K 25V
CB095	24109103	Cap, Chip	0.01μF	K 25V
CB096	24109103	Cap, Chip	0.01μF	K 25V
CB097	24109103	Cap, Chip	0.01μF	K 25V
CB098	24619100	Cap, Chip	10μF	M 16V
CB099	24109103	Cap, Chip	0.01μF	K 25V
CB100	24619100	Cap, Chip	10μF	M 16V
CB101	24109103	Cap, Chip	0.01μF	K 25V
CB102	24619100	Cap, Chip	10μF	M 16V
CB103	24109103	Cap, Chip	0.01μF	K 25V
CB104	24619141	Cap, Chip	2.2μF	M 50V
CB105	24619141	Cap, Chip	2.2μF	M 50V
CB106	24619141	Cap, Chip	2.2μF	M 50V
CB107	24109103	Cap, Chip	0.01μF	K 25V
CB108	24619102	Cap, Chip	47μF	M 16V
CB109	24619100	Cap, Chip	10μF	M 16V
CB110	24109103	Cap, Chip	0.01μF	K 25V
CB111	24619102	Cap, Chip	47μF	M 16V
CB113	24619106	Cap, Chip	33μF	M 25V
CL001	24092399	Cap, Chip	0.1μF	Z 16V
CL002	24619113	Cap, Chip	1μF	M 50V
CL003	24619113	Cap, Chip	1μF	M 50V
CL004	24619113	Cap, Chip	1μF	M 50V
CL005	24619113	Cap, Chip	1μF	M 50V
CL006	24619113	Cap, Chip	1μF	M 50V
CV001	24619102	Cap, Chip	47μF	M 16V
CV002	24619102	Cap, Chip	47μF	M 16V
CV003	24109103	Cap, Chip	0.01μF	K 25V
CV004	24109103	Cap, Chip	0.01μF	K 25V

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
CV006	24619100	Cap, Chip	10 μ F	M 16V
CV007	24109103	Cap, Chip	0.01 μ F	K 25V
CV008	24105120	Cap, Chip	12pF	J 50V
CV009	24105120	Cap, Chip	12pF	J 50V
CV010	24619141	Cap, Chip	2.2 μ F	M 50V
CV011	24619100	Cap, Chip	10 μ F	M 16V
CV012	24105120	Cap, Chip	12pF	J 50V
CV013	24105120	Cap, Chip	12pF	J 50V
CV014	24109103	Cap, Chip	0.01 μ F	K 25V
CV015	24109103	Cap, Chip	0.01 μ F	K 25V
CV016	24092399	Cap, Chip	0.1 μ F	Z 16V
CV017	24105220	Cap, Chip	22 μ F	J 50V
CV018	24105180	Cap, Chip	18pF	J 50V
CV019	24105100	Cap, Chip	10pF	J 50V
CV020	24109103	Cap, Chip	0.01 μ F	K 25V
CV021	24092399	Cap, Chip	0.1 μ F	Z 16V
CV022	24619100	Cap, Chip	10 μ F	M 16V
CV023	24619113	Cap, Chip	1 μ F	M 50V
CV024	24109103	Cap, Chip	0.01 μ F	K 25V
CV025	24092399	Cap, Chip	0.1 μ F	Z 16V
CV026	24619100	Cap, Chip	10 μ F	M 16V
CV027	24619102	Cap, Chip	47 μ F	M 16V
CV028	24092399	Cap, Chip	0.1 μ F	Z 16V
CV029	24619100	Cap, Chip	10 μ F	M 16V
CV030	24105220	Cap, Chip	22 μ F	J 50V
CV031	24092399	Cap, Chip	0.1 μ F	Z 16V
CV032	24105390	Cap, Chip	39pF	J 50V
CV033	24109103	Cap, Chip	0.01 μ F	K 25V
CV034	24105181	Cap, Chip	180pF	J 50V
CV035	24109103	Cap, Chip	0.01 μ F	K 25V
CV036	24109103	Cap, Chip	0.01 μ F	K 25V
CV037	24109103	Cap, Chip	0.01 μ F	K 25V
CV038	24109103	Cap, Chip	0.01 μ F	K 25V
CV039	24619100	Cap, Chip	10 μ F	M 16V
CV040	24092399	Cap, Chip	0.1 μ F	Z 16V
CV041	24109103	Cap, Chip	0.01 μ F	K 25V
CV042	24619100	Cap, Chip	10 μ F	M 16V
CV043	24092399	Cap, Chip	0.1 μ F	Z 16V
CV044	24092399	Cap, Chip	0.1 μ F	Z 16V
CV045	24092399	Cap, Chip	0.1 μ F	Z 16V
CV046	24092399	Cap, Chip	0.1 μ F	Z 16V
CV047	24092399	Cap, Chip	0.1 μ F	Z 16V
CV048	24109103	Cap, Chip	0.01 μ F	K 25V
CV049	24109103	Cap, Chip	0.01 μ F	K 25V
CV050	24109103	Cap, Chip	0.01 μ F	K 25V
CV051	24092399	Cap, Chip	0.1 μ F	Z 16V
CV052	24619112	Cap, Chip	0.47 μ F	M 50V
CV053	24815332	Cap, Chip	3300pF	K 50V
CV054	24092399	Cap, Chip	0.1 μ F	Z 16V
CV055	24092399	Cap, Chip	0.1 μ F	Z 16V
CV056	24092399	Cap, Chip	0.1 μ F	Z 16V
CV057	24092399	Cap, Chip	0.1 μ F	Z 16V
CV058	24815332	Cap, Chip	3300pF	K 50V
CV059	24105160	Cap, Chip	16pF	J 50V
CV060	24105130	Cap, Chip	13pF	J 50V
CV061	24092399	Cap, Chip	0.1 μ F	Z 16V
CV062	24105100	Cap, Chip	10pF	J 50V
CV063	24105181	Cap, Chip	180pF	J 50V
CV064	24109103	Cap, Chip	0.01 μ F	K 25V
CV065	24619100	Cap, Chip	10 μ F	M 16V
CV066	24109103	Cap, Chip	0.01 μ F	K 25V
CV067	24109103	Cap, Chip	0.01 μ F	K 25V
CV068	24619100	Cap, Chip	10 μ F	M 16V
CV069	24109103	Cap, Chip	0.01 μ F	K 25V
CV070	24109103	Cap, Chip	0.01 μ F	K 25V
CV071	24619100	Cap, Chip	10 μ F	M 16V
CV072	24092399	Cap, Chip	0.1 μ F	Z 16V
CV073	24092399	Cap, Chip	0.1 μ F	Z 16V
CV074	24092399	Cap, Chip	0.1 μ F	Z 16V
CV075	24092399	Cap, Chip	0.1 μ F	Z 16V
CV076	24092399	Cap, Chip	0.1 μ F	Z 16V
CV077	24092399	Cap, Chip	0.1 μ F	Z 16V
CV078	24109103	Cap, Chip	0.01 μ F	K 25V
CV079	24109103	Cap, Chip	0.01 μ F	K 25V
CV081	24100473	Cap, Chip	4700pF	Z 25V

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
CV082	24092399	Cap, Chip	0.1 μ F	Z 16V
CV083	24092399	Cap, Chip	0.1 μ F	Z 16V
CV084	24109103	Cap, Chip	0.01 μ F	K 25V
CV085	24109103	Cap, Chip	0.01 μ F	K 25V
CV086	24109103	Cap, Chip	0.01 μ F	K 25V
CV087	24109103	Cap, Chip	0.01 μ F	K 25V
CV088	24109103	Cap, Chip	0.01 μ F	K 25V
CV089	24109103	Cap, Chip	0.01 μ F	K 25V
CV090	24619100	Cap, Chip	10 μ F	M 16V
CV091	24619113	Cap, Chip	1 μ F	M 50V
CV092	24092294	Cap, Chip	0.33 μ F	Z 16V
CV093	24619113	Cap, Chip	1 μ F	M 50V
CV094	24092399	Cap, Chip	0.1 μ F	Z 16V
CV095	24092399	Cap, Chip	0.1 μ F	Z 16V
CV096	24092399	Cap, Chip	0.1 μ F	Z 16V
CV097	24619100	Cap, Chip	10 μ F	M 16V
CV098	24109103	Cap, Chip	0.01 μ F	K 25V
CV111	24619102	Cap, Chip	47 μ F	M 16V
CV112	24619100	Cap, Chip	10 μ F	M 16V
CV113	24619102	Cap, Chip	47 μ F	M 16V
CV114	24109103	Cap, Chip	0.01 μ F	K 25V
CV115	24109103	Cap, Chip	0.01 μ F	K 25V
CV125	24109103	Cap, Chip	0.01 μ F	K 25V
CV126	24619100	Cap, Chip	10 μ F	M 16V
CV127	24619102	Cap, Chip	47 μ F	M 16V
CV128	24109103	Cap, Chip	0.01 μ F	K 25V
CV129	24088953	Cap, Chip	33 μ F	M 16V
CV130	24109103	Cap, Chip	0.01 μ F	K 25V
CV131	24619102	Cap, Chip	47 μ F	M 16V
CV132	24109103	Cap, Chip	0.01 μ F	K 25V
CV133	24088953	Cap, Chip	33 μ F	M 16V
CV134	24109103	Cap, Chip	0.01 μ F	K 25V
CV135	24619106	Cap, Chip	33 μ F	M 25V
CV136	24109103	Cap, Chip	0.01 μ F	K 25V
CV137	24088978	Cap, Chip	22 μ F	M 20V
CV138	24109103	Cap, Chip	0.01 μ F	K 25V
CV139	24619102	Cap, Chip	47 μ F	M 16V
CV140	24109103	Cap, Chip	0.01 μ F	K 25V
CV141	24088953	Cap, Chip	33 μ F	M 16V
CV142	24109103	Cap, Chip	0.01 μ F	K 25V
CV143	24619102	Cap, Chip	47 μ F	M 16V
CV144	24109103	Cap, Chip	0.01 μ F	K 25V
CV145	24088953	Cap, Chip	33 μ F	M 16V
CV146	24109103	Cap, Chip	0.01 μ F	K 25V
CV147	24619106	Cap, Chip	33 μ F	M 25V
CV148	24109103	Cap, Chip	0.01 μ F	K 25V
CV149	24088978	Cap, Chip	22 μ F	M 20V
CV150	24109103	Cap, Chip	0.01 μ F	K 25V
CV151	24619100	Cap, Chip	10 μ F	M 16V
CV152	24109103	Cap, Chip	0.01 μ F	K 25V
CV153	24092399	Cap, Chip	0.1 μ F	Z 16V
CV154	24092399	Cap, Chip	0.1 μ F	Z 16V
CV155	24105101	Cap, Chip	100pF	J 50V
- RESISTORS -				
RA01	24011474	Res, Chip	470k Ω	J 1/20W
RA02	24011562	Res, Chip	5.6k Ω	J 1/20W
RA03	24011474	Res, Chip	470k Ω	J 1/20W
RA04	24011562	Res, Chip	5.6k Ω	J 1/20W
RA05	24011474	Res, Chip	470k Ω	J 1/20W
RA06	24011562	Res, Chip	5.6k Ω	J 1/20W
RA07	24011474	Res, Chip	470k Ω	J 1/20W
RA08	24011562	Res, Chip	5.6k Ω	J 1/20W
RA35	24011332	Res, Chip	3.3k Ω	J 1/20W
RA36	24011334	Res, Chip	330k Ω	J 1/20W
RA37	24011100	Res, Chip	10 Ω	J 1/20W
RA38	24011100	Res, Chip	10 Ω	J 1/20W
RA39	24011100	Res, Chip	10 Ω	J 1/20W
RA40	24011562	Res, Chip	5.6k Ω	J 1/20W
RB001	24000590	Res, Chip	3k Ω	F 1/16W
RB002	24000573	Res, Chip	1k Ω	F 1/16W
RB003	24000558	Res, Chip	750 Ω	F 1/16W
RB004	24000458	Res, Chip	240 Ω	F 1/16W
RB005	24872471	Res, Chip	470 Ω	J 1/16W
RB007	24872820	Res, Chip	82 Ω	J 1/16W
RB008	24872820	Res, Chip	82 Ω	J 1/16W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RB009	24872820	Res, Chip	82Ω	J 1/16W
RB010	24011103	Res, Chip	10kΩ	J 1/20W
RB011	24011103	Res, Chip	10kΩ	J 1/20W
RB012	24011103	Res, Chip	10kΩ	J 1/20W
RB013	24011103	Res, Chip	10kΩ	J 1/20W
RB014	24011103	Res, Chip	10kΩ	J 1/20W
RB015	24011103	Res, Chip	10kΩ	J 1/20W
RB016	24011104	Res, Chip	100kΩ	J 1/20W
RB017	24011104	Res, Chip	100kΩ	J 1/20W
RB018	24011750	Res, Chip	75Ω	J 1/20W
RB019	24011220	Res, Chip	22Ω	J 1/20W
RB020	24011220	Res, Chip	22Ω	J 1/20W
RB021	24011750	Res, Chip	75Ω	J 1/20W
RB022	24011220	Res, Chip	22Ω	J 1/20W
RB023	24011220	Res, Chip	22Ω	J 1/20W
RB024	24011220	Res, Chip	22Ω	J 1/20W
RB025	24011750	Res, Chip	75Ω	J 1/20W
RB026	24011220	Res, Chip	22Ω	J 1/20W
RB027	24011220	Res, Chip	22Ω	J 1/20W
RB028	24011220	Res, Chip	22Ω	J 1/20W
RB029	24011220	Res, Chip	22Ω	J 1/20W
RB031	24872750	Res, Chip	75Ω	J 1/16W
RB032	24872750	Res, Chip	75Ω	J 1/16W
RB033	24872750	Res, Chip	75Ω	J 1/16W
RB034	24011151	Res, Chip	150Ω	J 1/20W
RB035	24011220	Res, Chip	22Ω	J 1/20W
RB038	24011220	Res, Chip	22Ω	J 1/20W
RB041	24011220	Res, Chip	22Ω	J 1/20W
RB044	24011223	Res, Chip	22kΩ	J 1/20W
RB046	24011101	Res, Chip	100Ω	J 1/20W
RB047	24011220	Res, Chip	22Ω	J 1/20W
RB048	24872221	Res, Chip	220Ω	J 1/16W
RB049	24011220	Res, Chip	22Ω	J 1/20W
RB050	24011220	Res, Chip	22Ω	J 1/20W
RB051	24872221	Res, Chip	220Ω	J 1/16W
RB052	24011220	Res, Chip	22Ω	J 1/20W
RB053	24011220	Res, Chip	22Ω	J 1/20W
RB054	24872221	Res, Chip	220Ω	J 1/16W
RB055	24011220	Res, Chip	22Ω	J 1/20W
RB056	24011330	Res, Chip	33Ω	J 1/20W
RB059	24011221	Res, Chip	220Ω	J 1/20W
RB060	24011103	Res, Chip	10kΩ	J 1/20W
RB061	24011221	Res, Chip	220Ω	J 1/20W
RB062	24011103	Res, Chip	10kΩ	J 1/20W
RB063	24011183	Res, Chip	18kΩ	J 1/20W
RB064	24011222	Res, Chip	2. 2kΩ	J 1/20W
RB065	24011183	Res, Chip	18kΩ	J 1/20W
RB066	24011222	Res, Chip	2. 2kΩ	J 1/20W
RB067	24011563	Res, Chip	56kΩ	J 1/20W
RB068	24000419	Res, Chip	4. 3kΩ	F 1/16W
RB069	24000408	Res, Chip	43kΩ	F 1/16W
RB070	24011101	Res, Chip	100Ω	J 1/20W
RB071	24011101	Res, Chip	100Ω	J 1/20W
RB072	24011101	Res, Chip	100Ω	J 1/20W
RB074	24011101	Res, Chip	100Ω	J 1/20W
RB075	24011101	Res, Chip	100Ω	J 1/20W
RB076	24011220	Res, Chip	22Ω	J 1/20W
RB077	24011562	Res, Chip	5. 6kΩ	J 1/20W
RB078	24011220	Res, Chip	22Ω	J 1/20W
RB079	24011562	Res, Chip	5. 6kΩ	J 1/20W
RB080	24011220	Res, Chip	22Ω	J 1/20W
RB081	24011562	Res, Chip	5. 6kΩ	J 1/20W
RB082	24011103	Res, Chip	10kΩ	J 1/20W
RB083	24011822	Res, Chip	8. 2kΩ	J 1/20W
RB084	24011822	Res, Chip	8. 2kΩ	J 1/20W
RB085	24011822	Res, Chip	8. 2kΩ	J 1/20W
RB086	24011822	Res, Chip	8. 2kΩ	J 1/20W
RB087	24011471	Res, Chip	470Ω	J 1/20W
RB089	24872821	Res, Chip	820Ω	J 1/16W
RB091	24872821	Res, Chip	820Ω	J 1/16W
RB093	24872821	Res, Chip	820Ω	J 1/16W
RB094	24011562	Res, Chip	5. 6kΩ	J 1/20W
RB095	24011822	Res, Chip	8. 2kΩ	J 1/20W
RB096	24011103	Res, Chip	10kΩ	J 1/20W
RB099	24011103	Res, Chip	10kΩ	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION		
RB102	24011103	Res, Chip	10kΩ	J 1/20W
RB105	24011103	Res, Chip	10kΩ	J 1/20W
RB108	24011101	Res, Chip	100Ω	J 1/20W
RB109	24011101	Res, Chip	100Ω	J 1/20W
RB110	24011101	Res, Chip	100Ω	J 1/20W
RB111	24011101	Res, Chip	100Ω	J 1/20W
RB112	24011101	Res, Chip	100Ω	J 1/20W
RB113	24011101	Res, Chip	100Ω	J 1/20W
RB114	24011101	Res, Chip	100Ω	J 1/20W
RB115	24011101	Res, Chip	100Ω	J 1/20W
RB116	24011101	Res, Chip	100Ω	J 1/20W
RB117	24011101	Res, Chip	100Ω	J 1/20W
RB118	24011101	Res, Chip	100Ω	J 1/20W
RB119	24011221	Res, Chip	220Ω	J 1/20W
RB120	24011221	Res, Chip	220Ω	J 1/20W
RB121	24011223	Res, Chip	22kΩ	J 1/20W
RB122	24011222	Res, Chip	2. 2kΩ	J 1/20W
RB123	24011222	Res, Chip	2. 2kΩ	J 1/20W
RB124	24011222	Res, Chip	2. 2kΩ	J 1/20W
RB125	24011103	Res, Chip	10kΩ	J 1/20W
RB126	24011103	Res, Chip	10kΩ	J 1/20W
RB127	24011103	Res, Chip	10kΩ	J 1/20W
RB128	24872471	Res, Chip	470Ω	J 1/16W
RB129	24011560	Res, Chip	56Ω	J 1/20W
RB130	24872471	Res, Chip	470Ω	J 1/16W
RB131	24011560	Res, Chip	56Ω	J 1/20W
RB132	24872471	Res, Chip	470Ω	J 1/16W
RB133	24011560	Res, Chip	56Ω	J 1/20W
RB134	24011222	Res, Chip	2. 2kΩ	J 1/20W
RB135	24011222	Res, Chip	2. 2kΩ	J 1/20W
RB136	24011222	Res, Chip	2. 2kΩ	J 1/20W
RB137	24872821	Res, Chip	820Ω	J 1/16W
RB138	24872821	Res, Chip	820Ω	J 1/16W
RB139	24872821	Res, Chip	820Ω	J 1/16W
RL001	24011301	Res, Chip	300Ω	J 1/20W
RL002	24011301	Res, Chip	300Ω	J 1/20W
RV001	24011750	Res, Chip	75Ω	J 1/20W
RV002	24011101	Res, Chip	100Ω	J 1/20W
RV003	24011101	Res, Chip	100Ω	J 1/20W
RV004	24011750	Res, Chip	75Ω	J 1/20W
RV005	24011750	Res, Chip	75Ω	J 1/20W
RV013	24011101	Res, Chip	100Ω	J 1/20W
RV014	24011101	Res, Chip	100Ω	J 1/20W
RV015	24011471	Res, Chip	470Ω	J 1/20W
RV016	24011152	Res, Chip	1. 5kΩ	J 1/20W
RV017	24011101	Res, Chip	100Ω	J 1/20W
RV018	24011821	Res, Chip	820Ω	J 1/20W
RV019	24011471	Res, Chip	470Ω	J 1/20W
RV020	24011392	Res, Chip	3. 9kΩ	J 1/20W
RV021	24011564	Res, Chip	560kΩ	J 1/20W
RV022	24011101	Res, Chip	100Ω	J 1/20W
RV023	24011821	Res, Chip	820Ω	J 1/20W
RV024	24011471	Res, Chip	470Ω	J 1/20W
RV026	24011101	Res, Chip	100Ω	J 1/20W
RV027	24011101	Res, Chip	100Ω	J 1/20W
RV028	24011102	Res, Chip	1kΩ	J 1/20W
RV029	24011821	Res, Chip	820Ω	J 1/20W
RV030	24011332	Res, Chip	3. 3kΩ	J 1/20W
RV031	24011332	Res, Chip	3. 3kΩ	J 1/20W
RV032	24011822	Res, Chip	8. 2kΩ	J 1/20W
RV033	24011332	Res, Chip	3. 3kΩ	J 1/20W
RV034	24011103	Res, Chip	10kΩ	J 1/20W
RV035	24011102	Res, Chip	1kΩ	J 1/20W
RV036	24011102	Res, Chip	1kΩ	J 1/20W
RV037	24011152	Res, Chip	1. 5kΩ	J 1/20W
RV038	24011102	Res, Chip	1kΩ	J 1/20W
RV039	24011102	Res, Chip	1kΩ	J 1/20W
RV040	24011152	Res, Chip	1. 5kΩ	J 1/20W
RV041	24011101	Res, Chip	100Ω	J 1/20W
RV042	24011101	Res, Chip	100Ω	J 1/20W
RV043	24011182	Res, Chip	1. 8kΩ	J 1/20W
RV044	24011103	Res, Chip	10kΩ	J 1/20W
RV045	24011182	Res, Chip	1. 8kΩ	J 1/20W
RV046	24011821	Res, Chip	820Ω	J 1/20W
RV047	24011271	Res, Chip	270Ω	J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION
RV048	24011182	Res, Chip	1.8kΩ	J 1/20W	RV140 24000573 Res, Chip 1kΩ F 1/16W
RV049	24011132	Res, Chip	1.3kΩ	J 1/20W	RV141 24000449 Res, Chip 6.2kΩ F 1/16W
RV050	24011132	Res, Chip	1.3kΩ	J 1/20W	RV142 24000573 Res, Chip 1kΩ F 1/16W
RV051	24011102	Res, Chip	1kΩ	J 1/20W	RV143 24000606 Res, Chip 8.2kΩ F 1/16W
RV052	24011153	Res, Chip	15kΩ	J 1/20W	RV144 24000552 Res, Chip 390Ω F 1/16W
RV053	24011101	Res, Chip	100Ω	J 1/20W	RV145 24000573 Res, Chip 1kΩ F 1/16W
RV054	24011101	Res, Chip	100Ω	J 1/20W	RV146 24011472 Res, Chip 4.7kΩ J 1/20W
RV055	24011823	Res, Chip	82kΩ	J 1/20W	RV147 2401101 Res, Chip 100Ω J 1/20W
RV056	24011271	Res, Chip	270Ω	J 1/20W	RV150 24011101 Res, Chip 100Ω J 1/20W
RV057	24011101	Res, Chip	100Ω	J 1/20W	RV151 24011101 Res, Chip 100Ω J 1/20W
RV058	24011100	Res, Chip	10Ω	J 1/20W	RV152 24011101 Res, Chip 100Ω J 1/20W
RV059	24011332	Res, Chip	3.3kΩ	J 1/20W	RV153 24011101 Res, Chip 100Ω J 1/20W
RV060	24011152	Res, Chip	1.5kΩ	J 1/20W	RV154 24011101 Res, Chip 100Ω J 1/20W
RV061	24011101	Res, Chip	100Ω	J 1/20W	RV155 24011101 Res, Chip 100Ω J 1/20W
RV062	24011101	Res, Chip	100Ω	J 1/20W	RV156 24011101 Res, Chip 100Ω J 1/20W
RV063	24011101	Res, Chip	100Ω	J 1/20W	RV157 24011101 Res, Chip 100Ω J 1/20W
RV064	24011101	Res, Chip	100Ω	J 1/20W	RV158 24011101 Res, Chip 100Ω J 1/20W
RV065	24011101	Res, Chip	100Ω	J 1/20W	RV159 24011101 Res, Chip 100Ω J 1/20W
RV066	24011182	Res, Chip	1.8kΩ	J 1/20W	RV160 24011472 Res, Chip 4.7kΩ J 1/20W
RV067	24011272	Res, Chip	2.7kΩ	J 1/20W	RV161 24011101 Res, Chip 100Ω J 1/20W
RV068	24011102	Res, Chip	1kΩ	J 1/20W	RV163 24011472 Res, Chip 4.7kΩ J 1/20W
RV069	24011102	Res, Chip	1kΩ	J 1/20W	RV164 24011472 Res, Chip 4.7kΩ J 1/20W
RV070	24011392	Res, Chip	3.9kΩ	J 1/20W	RV165 24011472 Res, Chip 4.7kΩ J 1/20W
RV071	24011102	Res, Chip	1kΩ	J 1/20W	RV166 24011472 Res, Chip 4.7kΩ J 1/20W
RV072	24011100	Res, Chip	10Ω	J 1/20W	RV167 24011472 Res, Chip 4.7kΩ J 1/20W
RV073	24011182	Res, Chip	1.8kΩ	J 1/20W	RV168 24011472 Res, Chip 4.7kΩ J 1/20W
RV074	24011272	Res, Chip	2.7kΩ	J 1/20W	RV169 24011472 Res, Chip 4.7kΩ J 1/20W
RV075	24011472	Res, Chip	4.7kΩ	J 1/20W	RV170 24011123 Res, Chip 12kΩ J 1/20W
RV076	24011101	Res, Chip	100Ω	J 1/20W	RV171 24011392 Res, Chip 3.9kΩ J 1/20W
RV077	24011182	Res, Chip	1.8kΩ	J 1/20W	RV172 24011101 Res, Chip 100Ω J 1/20W
RV078	24011272	Res, Chip	2.7kΩ	J 1/20W	RV173 24011102 Res, Chip 1kΩ J 1/20W
RV079	24011102	Res, Chip	1kΩ	J 1/20W	RV174 24011471 Res, Chip 470Ω J 1/20W
RV080	24011102	Res, Chip	1kΩ	J 1/20W	RV175 24011821 Res, Chip 820Ω J 1/20W
RV081	24011392	Res, Chip	3.9kΩ	J 1/20W	- MISCELLANEOUS -
RV082	24011102	Res, Chip	1kΩ	J 1/20W	M999A 23969946 Tape
RV083	24011100	Res, Chip	10Ω	J 1/20W	PV001 23903047 Socket DSUB
RV084	24011182	Res, Chip	1.8kΩ	J 1/20W	PV002 23903047 Socket DSUB
RV085	24011272	Res, Chip	2.7kΩ	J 1/20W	PV003 23365444 Earphone Jack
RV086	24011472	Res, Chip	4.7kΩ	J 1/20W	PV004 23365684 Phono Jack S-VHS, 4P
RV087	24011331	Res, Chip	330Ω	J 1/20W	PV005 23365833 Phono Jack 3P
RV088	24011331	Res, Chip	330Ω	J 1/20W	PV008 23164559 Plug 7P, 2.5mm
RV089	24011561	Res, Chip	560Ω	J 1/20W	PV009 23903052 Socket FPC/FFC
RV090	24011222	Res, Chip	2.2kΩ	J 1/20W	PV010 23903046 Socket 1mm, 50P
RV092	24011101	Res, Chip	100Ω	J 1/20W	PV012 23368672 Plug 26P
RV093	24011392	Res, Chip	3.9kΩ	J 1/20W	PV013 23368241 Plug 13P
RV094	24011392	Res, Chip	3.9kΩ	J 1/20W	SV001 70145484 Switch SPVF11
RV095	24011823	Res, Chip	82kΩ	J 1/20W	ZV001 23153961 Crystal, 3.58MHz
RV096	24011105	Res, Chip	1MΩ	J 1/20W	ZV002 23153471 Crystal 4.43MHz
RV100	24011101	Res, Chip	100Ω	J 1/20W	ZV003 70132486 Filter LPF
RV101	24011101	Res, Chip	100Ω	J 1/20W	ZV004 70132486 Filter LPF
RV111	24011750	Res, Chip	75Ω	J 1/20W	ZV005 23103823 Filter TEM2027D
RV112	24011750	Res, Chip	75Ω	J 1/20W	ZV006 23103823 Filter TEM2027D
RV113	24011223	Res, Chip	22kΩ	J 1/20W	ZV011 23103823 Filter TEM2027D
RV114	24011153	Res, Chip	15kΩ	J 1/20W	ZV012 23103823 Filter TEM2027D
RV115	24011101	Res, Chip	100Ω	J 1/20W	■U0032 23781072 PC Board Assy Audio
RV116	24011272	Res, Chip	2.7kΩ	J 1/20W	- INTEGRATED CIRCUITS -
RV118	24011223	Res, Chip	22kΩ	J 1/20W	QA01 23318752 IC M5222FP
RV119	24011223	Res, Chip	22kΩ	J 1/20W	QA02 23319944 IC TDA7056A
RV120	24011101	Res, Chip	100Ω	J 1/20W	- TRANSISTORS -
RV121	24011272	Res, Chip	2.7kΩ	J 1/20W	QA03 A6335470 Transistor, Chip 2SC2712-Y
RV125	24011153	Res, Chip	15kΩ	J 1/20W	QA04 A6335470 Transistor, Chip 2SC2712-Y
RV126	24011153	Res, Chip	15kΩ	J 1/20W	QA05 A6004020 Transistor, Chip RN1402
RV127	24011153	Res, Chip	15kΩ	J 1/20W	QA06 A6004020 Transistor, Chip RN1402
RV128	24011153	Res, Chip	15kΩ	J 1/20W	- DIODES -
RV129	24011101	Res, Chip	100Ω	J 1/20W	DA01 A7150800 Diode, Chip 1SS187
RV130	24011101	Res, Chip	100Ω	J 1/20W	DA02 23118287 Diode, Chip RD12M
RV131	24000449	Res, Chip	6.2kΩ	F 1/16W	DA03 23118287 Diode, Chip RD12M
RV132	24000573	Res, Chip	1kΩ	F 1/16W	- CAPACITORS -
RV133	24000417	Res, Chip	5.1kΩ	F 1/16W	CA11 24619100 Cap, Chip 10μF M 16V
RV134	24000459	Res, Chip	270Ω	F 1/16W	CA12 24619100 Cap, Chip 10μF M 16V
RV135	24000573	Res, Chip	1kΩ	F 1/16W	CA13 24619100 Cap, Chip 10μF M 16V
RV136	24000606	Res, Chip	8.2kΩ	F 1/16W	CA14 24619100 Cap, Chip 10μF M 16V
RV137	24000552	Res, Chip	390Ω	F 1/16W	CA15 24092399 Cap, Chip 0.1μF Z 16V
RV138	24000573	Res, Chip	1kΩ	F 1/16W	CA16 24666471 Cap, Electrolytic 470μF M 16V
RV139	24000590	Res, Chip	3kΩ	F 1/16W	

LOCATION	PART NUMBER	DESCRIPTION		
CA17	24619100	Cap, Chip	10 μ F	M 16V
CA18	24109103	Cap, Chip	0.01 μ F	K 25V
CA19	24109103	Cap, Chip	0.01 μ F	K 25V
CA20	24092399	Cap, Chip	0.1 μ F	Z 16V
CA21	24619100	Cap, Chip	10 μ F	M 16V
CA22	24619100	Cap, Chip	10 μ F	M 16V
CA24	24092399	Cap, Chip	0.1 μ F	Z 16V
CA25	24092399	Cap, Chip	0.1 μ F	Z 16V
- RESISTORS -				
RA099	24366471	Res, Carbon	470 Ω	J 1/6W
RA11	24011473	Res, Chip	47k Ω	J 1/20W
RA12	24011473	Res, Chip	47k Ω	J 1/20W
RA13	24011223	Res, Chip	22k Ω	J 1/20W
RA14	24011392	Res, Chip	3. 9k Ω	J 1/20W
RA15	24011822	Res, Chip	8. 2k Ω	J 1/20W
RA16	24011472	Res, Chip	4. 7k Ω	J 1/20W
RA17	24011123	Res, Chip	12k Ω	J 1/20W
RA18	24011472	Res, Chip	4. 7k Ω	J 1/20W
RA19	24011123	Res, Chip	12k Ω	J 1/20W
RA20	24011472	Res, Chip	4. 7k Ω	J 1/20W
RA21	24011473	Res, Chip	47k Ω	J 1/20W
RA22	24011102	Res, Chip	1k Ω	J 1/20W
RA23	24011333	Res, Chip	33k Ω	J 1/20W
RA24	24011223	Res, Chip	22k Ω	J 1/20W
RA25	24000488	Res, Chip	3. 9 Ω	J 1/2W
RA26	24000488	Res, Chip	3. 9 Ω	J 1/2W
RA27	24011101	Res, Chip	100 Ω	J 1/20W
RA28	24011101	Res, Chip	100 Ω	J 1/20W
RA29	24011182	Res, Chip	1. 8k Ω	J 1/20W
RA30	24011102	Res, Chip	1k Ω	J 1/20W
RA31	24011104	Res, Chip	100k Ω	J 1/20W
RA32	24011182	Res, Chip	1. 8k Ω	J 1/20W
RA33	24011102	Res, Chip	1k Ω	J 1/20W
RA34	24011104	Res, Chip	100k Ω	J 1/20W
RA41	24011102	Res, Chip	1k Ω	J 1/20W
RA42	24011102	Res, Chip	1k Ω	J 1/20W
- MISCELLANEOUS -				
PV006	23365444	Earphone Jack		
PV007	23901448	Connector		
PV014	23902760	Socket	13P	
QA02C	70391354	Screw	3x6mm	
■U0041	23781073	PC Board Assy	Inverter, TLP511U/E	
- INTEGRATED CIRCUITS -				
QM002	70129738	IC	PQ20VZ1U	
QM007	70128490	IC	MM1031M	
QM008	A6030620	IC	TC7S04F	
- TRANSISTORS -				
QI001	A6014040	Transistor, Chip	RN2404	
QI002	A6014040	Transistor, Chip	RN2404	
QI003	23314142	Transistor	2SC3834	
QM001	A6014040	Transistor, Chip	RN2404	
QM003	A6335477	Transistor, Chip	2SC2712-Y	
QM004	A6335477	Transistor, Chip	2SC2712-Y	
QM005	A6335477	Transistor, Chip	2SC2712-Y	
QM006	A6335477	Transistor, Chip	2SC2712-Y	
- DIODES -				
DI001	A7150800	Diode, Chip	1SS187	
DI002	A7150800	Diode, Chip	1SS187	
DI003	23118317	Diode, Chip	RD2. 4M-T1BB	
DI004	23118317	Diode, Chip	RD2. 4M-T1BB	
DI005	A7150800	Diode, Chip	1SS187	
DI006	23316725	Diode, Zener	MTZJ15B	
DM001	23118313	Diode, Chip	RD6. 2M	
DM002	A7150800	Diode, Chip	1SS187	
DM003	A7150800	Diode, Chip	1SS187	
DM004	23118313	Diode, Chip	RD6. 2M	
DM005	23118313	Diode, Chip	RD6. 2M	
- COILS -				
LI001	23221746	Coil, Choke	TLN3155D	
LI002	23217369	Power Transformer	TPW3382AD	
LM001	23103880	Coil, Choke	TEM2011Y	
LM002	23103880	Coil, Choke	TEM2011Y	
- CAPACITORS -				
CI001	24666331	Cap, Electrolytic	330 μ F	M 16V

LOCATION	PART NUMBER	DESCRIPTION		
CI002	24666470	Cap, Electrolytic	47 μ F	M 16V
CI003	24815473	Cap, Chip	0.047 μ F	K 50V
CI004	24820392	Cap, Plastic	3900pF	J 630V
CM001	24619102	Cap, Chip	47 μ F	M 16V
CM002	24092399	Cap, Chip	0.1 μ F	Z 16V
CM003	24619102	Cap, Chip	47 μ F	M 16V
CM004	24092399	Cap, Chip	0.1 μ F	Z 16V
CM005	24619102	Cap, Chip	47 μ F	M 16V
CM007	24619102	Cap, Chip	47 μ F	M 16V
CM008	24092399	Cap, Chip	0.1 μ F	Z 16V
CM010	24619100	Cap, Chip	10 μ F	M 16V
CM011	24619100	Cap, Chip	10 μ F	M 16V
CM012	24619141	Cap, Chip	2. 2 μ F	M 50V
CM013	24092399	Cap, Chip	0.1 μ F	Z 16V
CM014	24665471	Cap, Electrolytic	470 μ F	M 10V
CM015	24092399	Cap, Chip	0.1 μ F	Z 16V
CM999	24591104	Cap, Plastic	0.1 μ F	J 50V
- RESISTORS -				
RI001	24011822	Res, Chip	8. 2k Ω	J 1/20W
RI002	24011103	Res, Chip	10k Ω	J 1/20W
RI003	24011242	Res, Chip	2. 4k Ω	J 1/20W
RI004	24011182	Res, Chip	1. 8k Ω	J 1/20W
RI005	24011479	Res, Chip	4. 7 Ω	J 1/20W
RI006	24011330	Res, Chip	33 Ω	J 1/20W
RI007	24011471	Res, Chip	470 Ω	J 1/20W
RI009	24019423	Posistor	PTH9M04BD471	
RI010	24011102	Res, Chip	1k Ω	J 1/20W
RM001	24011100	Res, Chip	10 Ω	J 1/20W
RM002	24011100	Res, Chip	10 Ω	J 1/20W
RM003	24011154	Res, Chip	150k Ω	J 1/20W
RM004	24011103	Res, Chip	10k Ω	J 1/20W
RM005	24011302	Res, Chip	3k Ω	J 1/20W
RM006	24011102	Res, Chip	1k Ω	J 1/20W
RM008	24011101	Res, Chip	100 Ω	J 1/20W
RM009	24011104	Res, Chip	100k Ω	J 1/20W
RM010	24011273	Res, Chip	27k Ω	J 1/20W
RM011	24011183	Res, Chip	18k Ω	J 1/20W
RM012	24011101	Res, Chip	100 Ω	J 1/20W
RM013	24011102	Res, Chip	1k Ω	J 1/20W
RM014	24011102	Res, Chip	1k Ω	J 1/20W
RM015	24011104	Res, Chip	100k Ω	J 1/20W
RM016	24011273	Res, Chip	27k Ω	J 1/20W
RM017	24011101	Res, Chip	100 Ω	J 1/20W
RM018	24011153	Res, Chip	15k Ω	J 1/20W
RM019	24011102	Res, Chip	1k Ω	J 1/20W
RM020	24011153	Res, Chip	15k Ω	J 1/20W
RM021	24011682	Res, Chip	6. 8k Ω	J 1/20W
RM022	24011102	Res, Chip	1k Ω	J 1/20W
RM023	24011122	Res, Chip	1. 2k Ω	J 1/20W
RM024	24011101	Res, Chip	100 Ω	J 1/20W
RM025	24011222	Res, Chip	2. 2k Ω	J 1/20W
RM026	240111750	Res, Chip	75 Ω	J 1/20W
RM027	24011104	Res, Chip	100k Ω	J 1/20W
RM028	24011102	Res, Chip	1k Ω	J 1/20W
RM029	24011334	Res, Chip	330k Ω	J 1/20W
RM999	24366101	Res, Carbon	100 Ω	J 1/6W
- MISCELLANEOUS -				
MS55A	23969946	Tape		
M666A	23969946	Tape		
N4010	23969946	Tape		
PM001	23368673	Plug	26P	
PM007	23363252	Phono Jack		
SM005	23145364	Switch, Slide	1C2P	
ZM001	23904946	Photo Reciever	RPM-676CBR-S	
ZM002	23103823	Filter	TEM2027D	
ZM003	23107622	Filter	TEM1018	
■U0042	23781074	PC Board Assy	SW, TLP511U/E	
- MISCELLANEOUS -				
SM001	23145226	Switch, Push	1C1P	
SM002	23145226	Switch, Push	1C1P	
SM003	23145226	Switch, Push	1C1P	
SM004	23145226	Switch, Push	1C1P	
■U501	70186900	P C Board Assy	Camera Video, TLP511U/E	

LOCATION NUMBER	PART NUMBER	DESCRIPTION
- INTEGRATED CIRCUITS -		
Q103	70200150	IC CXD1267AN
Q201	70200663	IC HD49322BF
Q202	A6030893	IC TC7W32FU
Q203	70200423	IC HD49811TFA
Q206	70128705	IC MM1024AF
Q301	A6030629	IC TC7S04FU
Q302	A6030791	IC TC7W74FU
Q303S	70200606	IC 6473337PROG
Q304	70200127	IC UPD4721GS
Q305	70200430	IC RN5VD27A
Q306	70200429	IC AK93C65LV
Q801	B0370000	IC TA78L05F
Q802	70129738	IC PQ20VZ1U
Q803	70200328	IC PQ05SZ1U
Q806	A6030629	IC TC7S04FU
- TRANSISTORS -		
Q102	23314507	Transistor, Chip 2SC3931-C
Q204	A6063920	Transistor, Chip 2SK880-Y
Q205	A6549570	Transistor, Chip 2SA1586-Y
Q307	23314351	Transistor, Chip XN6213
Q308	23314351	Transistor, Chip XN6213
Q309	23314271	Transistor, Chip UN5213
Q804	23314888	Transistor, Chip UMZ1N
Q805	23314888	Transistor, Chip UMZ1N
- DIODES -		
D101	23118041	Diode, Chip MA111
D102	A7154050	Diode, Chip 1SS301
D103	23118041	Diode, Chip MA111
D201	23118255	Diode, Chip 1T363-T8-T04
D801	23316895	Diode, Zener DTZ8.2B
D802	23316915	Diode, Zener DTZ15C
D803	A7155540	Diode, Chip 1SS372
D804	A7154100	Diode, Chip 1SS302
- COILS -		
L201	23245858	Coil, Chip TRF4100CC
L202	23245858	Coil, Chip TRF4100CC
L203	23245858	Coil, Chip TRF4100CC
L204	23245858	Coil, Chip TRF4100CC
L205	23245858	Coil, Chip TRF4100CC
L206	23245858	Coil, Chip TRF4100CC
L302	23245858	Coil, Chip TRF4100CC
L801	23245862	Coil, Chip TRF4221CC
- CAPACITORS -		
C101	24100104	Cap, Chip 0.1μF Z 25V
C102	24100104	Cap, Chip 0.1μF Z 25V
C103	24092538	Cap, Chip 1μF Z 10V
C104	24088080	Cap, Chip 33μF M 10V
C106	24109103	Cap, Chip 0.01μF K 25V
C107	24100104	Cap, Chip 0.1μF Z 25V
C108	24088082	Cap, Chip 1μF M 35V
C109	24100104	Cap, Chip 0.1μF Z 25V
C110	24100104	Cap, Chip 0.1μF Z 25V
C111	24100104	Cap, Chip 0.1μF Z 25V
C112	24100104	Cap, Chip 0.1μF Z 25V
C113	24100104	Cap, Chip 0.1μF Z 25V
C114	24100104	Cap, Chip 0.1μF Z 25V
C201	24092441	Cap, Chip 1μF Z 16V
C203	24100104	Cap, Chip 0.1μF Z 25V
C204	24100104	Cap, Chip 0.1μF Z 25V
C205	24100104	Cap, Chip 0.1μF Z 25V
C207	24088080	Cap, Chip 33μF M 10V
C208	24092538	Cap, Chip 1μF Z 10V
C209	24100104	Cap, Chip 0.1μF Z 25V
C210	24100104	Cap, Chip 0.1μF Z 25V
C215	24100104	Cap, Chip 0.1μF Z 25V
C216	24088078	Cap, Chip 15μF M 6.3V
C217	24100104	Cap, Chip 0.1μF Z 25V
C218	24100104	Cap, Chip 0.1μF Z 25V
C219	24100104	Cap, Chip 0.1μF Z 25V
C220	24100104	Cap, Chip 0.1μF Z 25V
C221	24088080	Cap, Chip 33μF M 10V
C222	24105220	Cap, Chip 22μF J 50V
C223	24105220	Cap, Chip 22μF J 50V
C224	24105220	Cap, Chip 22μF J 50V

LOCATION NUMBER	PART NUMBER	DESCRIPTION
- INTEGRATED CIRCUITS -		
C225	24100104	Cap, Chip 0.1μF Z 25V
C227	24100104	Cap, Chip 0.1μF Z 25V
C228	24100104	Cap, Chip 0.1μF Z 25V
C229	24088966	Cap, Cap, Tantalum 10μF M 4V
C230	24088966	Cap, Cap, Tantalum 10μF M 4V
C231	24088966	Cap, Cap, Tantalum 10μF M 4V
C233	24088080	Cap, Chip 33μF M 10V
C234	24088078	Cap, Chip 15μF M 6.3V
C235	24100104	Cap, Chip 0.1μF Z 25V
C236	24105220	Cap, Chip 22μF J 50V
C238	24109102	Cap, Chip 1000pF K 50V
C239	24109102	Cap, Chip 1000pF K 50V
C240	24100104	Cap, Chip 0.1μF Z 25V
C241	24088080	Cap, Chip 33μF M 10V
C242	24100104	Cap, Chip 0.1μF Z 25V
C243	24092441	Cap, Chip 1μF Z 16V
C244	24619096	Cap, Chip 22μF M 6.3V
C245	24619098	Cap, Chip 100μF M 6.3V
C246	24619098	Cap, Chip 100μF M 6.3V
C247	24619096	Cap, Chip 22μF M 6.3V
C248	24100104	Cap, Chip 0.1μF Z 25V
C249	24100104	Cap, Chip 0.1μF Z 25V
C301	24100104	Cap, Chip 0.1μF Z 25V
C303	24100104	Cap, Chip 0.1μF Z 25V
C305	24100104	Cap, Chip 0.1μF Z 25V
C307	24088080	Cap, Chip 33μF M 10V
C314	24092441	Cap, Chip 1μF Z 16V
C315	24092441	Cap, Chip 1μF Z 16V
C316	24092441	Cap, Chip 1μF Z 16V
C318	24092441	Cap, Chip 1μF Z 16V
C319	24092441	Cap, Chip 1μF Z 16V
C320	24100104	Cap, Chip 0.1μF Z 25V
C801	24092538	Cap, Chip 1μF Z 10V
C802	24100104	Cap, Chip 0.1μF Z 25V
C803	24100104	Cap, Chip 0.1μF Z 25V
C804	24100104	Cap, Chip 0.1μF Z 25V
C805	24088078	Cap, Chip 15μF M 6.3V
C806	24100104	Cap, Chip 0.1μF Z 25V
C807	24088964	Cap, Chip 4.7μF M 20V
C808	24088080	Cap, Chip 33μF M 10V
C809	24619100	Cap, Chip 10μF M 16V
C810	24619106	Cap, Chip 33μF M 25V
C811	24619100	Cap, Chip 10μF M 16V
C812	24619100	Cap, Chip 10μF M 16V
C813	24100104	Cap, Chip 0.1μF Z 25V
C814	24100104	Cap, Chip 0.1μF Z 25V
- RESISTORS -		
R101	24011105	Res, Chip 1MΩ J 1/20W
R102	24011104	Res, Chip 100kΩ J 1/20W
R103	24011393	Res, Chip 39kΩ J 1/20W
R104	24011101	Res, Chip 100Ω J 1/20W
R105	24011821	Res, Chip 820Ω J 1/20W
R106	24011101	Res, Chip 100Ω J 1/20W
R107	24011472	Res, Chip 4.7kΩ J 1/20W
R112	24011104	Res, Chip 100kΩ J 1/20W
R201	24011243	Res, Chip 24kΩ J 1/20W
R202	24011221	Res, Chip 220Ω J 1/20W
R203	24011221	Res, Chip 220Ω J 1/20W
R204	24011221	Res, Chip 220Ω J 1/20W
R205	24011221	Res, Chip 220Ω J 1/20W
R206	24011331	Res, Chip 330Ω J 1/20W
R207	24011102	Res, Chip 1kΩ J 1/20W
R208	24011102	Res, Chip 1kΩ J 1/20W
R209	24011102	Res, Chip 1kΩ J 1/20W
R211	24011101	Res, Chip 100Ω J 1/20W
R215	24011752	Res, Chip 7.5kΩ J 1/20W
R216	24011752	Res, Chip 7.5kΩ J 1/20W
R217	24000445	Res, Chip Jumper 0Ω
R218	24000445	Res, Chip Jumper 0Ω
R219	24011471	Res, Chip 470Ω J 1/20W
R220	24011105	Res, Chip 1MΩ J 1/20W
R221	24011104	Res, Chip 100kΩ J 1/20W
R222	24011472	Res, Chip 4.7kΩ J 1/20W
R223	24011183	Res, Chip 18kΩ J 1/20W
R224	24011101	Res, Chip 100Ω J 1/20W

LOCATION NUMBER	PART NUMBER	DESCRIPTION	LOCATION NUMBER	PART NUMBER	DESCRIPTION
R225	24011102	Res, Chip	1kΩ	J 1/20W	
R227	24011102	Res, Chip	1kΩ	J 1/20W	
R228	24011472	Res, Chip	4.7kΩ	J 1/20W	
R229	24011102	Res, Chip	1kΩ	J 1/20W	
R230	24011102	Res, Chip	1kΩ	J 1/20W	
R231	24011182	Res, Chip	1.8kΩ	J 1/20W	
R232	24011105	Res, Chip	1MΩ	J 1/20W	
R233	24998750	Res, Chip	75kΩ	D 1/16W	
R234	24998750	Res, Chip	75kΩ	D 1/16W	
R235	24998750	Res, Chip	75kΩ	D 1/16W	
R236	24011222	Res, Chip	2.2kΩ	J 1/20W	
R305	24011331	Res, Chip	330Ω	J 1/20W	
R308	24011101	Res, Chip	100Ω	J 1/20W	
R309	24011105	Res, Chip	1MΩ	J 1/20W	
R313	24000445	Res, Chip Jumper	0Ω		
R314	24011474	Res, Chip	470kΩ	J 1/20W	
R315	24011472	Res, Chip	4.7kΩ	J 1/20W	
R801	24011162	Res, Chip	1.6kΩ	J 1/20W	
R802	24011102	Res, Chip	1kΩ	J 1/20W	
R803	24011101	Res, Chip	100Ω	J 1/20W	
R804	24011471	Res, Chip	470Ω	J 1/20W	
R805	24011103	Res, Chip	10kΩ	J 1/20W	
- MISCELLANEOUS -					
F801	70144823	Fuse, Chip	1A		
Z201	70132524	Crystal	FCX0-03, 28.5M		
Z202	70132526	Crystal	FCX-03, 17.7M		
Z203	70132525	Filter	BPF, 4.43M		
Z204	70132523	Filter	LPF, 7M		
Z801	70131229	Coil, Chip	HF50ACC3225T		
Z802	70131229	Coil, Chip	HF50ACC3225T		

SPECIFICATIONS

[Main Unit]

Power requirements	AC 100 – 240V 50/60Hz
Power consumption	TLP510: 205W
	TLP511: 210W
Mass	TLP510: 6.8 Kg
	TLP511: 8.2 Kg
Dimensions	TLP510: 340 x 138 x 295 (mm) (W/H/D) (Including the projecting sections)
	TLP511: 340 x 138 x 365 (mm) (W/H/D) (Including the projecting sections)
Ambient environment	Temperature: 0°C to 35°C Humidity: 30% to 70% RH
Lamp	UHP lamp 120W
Speaker	1.5W (monaural)
RGB inputs	RGB signal (D-sub 15-pin) Audio: 1V(p-p), more than 22kΩ, ø3.5mm stereo mini jack
VIDEO inputs	S-video signal : Y input: 1V(p-p), 75Ω, negative synchronization (Mini DIN 4-pin) C input: 0.286V(p-p) (burst signal), 75Ω Video: 1V(p-p), 75Ω, negative synchronization, pin jack Audio: 1V(p-p), more than 22kΩ, pin jacks (L, R)
Outputs	RGB signal (D-sub 15-pin) Audio: 1V(p-p), less than 2.2kΩ, ø3.5mm stereo mini jack
CONTROL terminal	D-sub 9-pin (RS-232C)
Cabinet Material	ABS resin

[Liquid Crystal Display]

Projection system	3-pannels transmission
Panel size	1.3 inches
Driving system	TFT active matrix
Picture elements	786,432 (1024 x 768 dots) x 3

[Projection Lens]

Lens	Zooming lens F=2.5 – 3.0 f=50 – 70mm
Focusing	Manual operation
Zooming	Manual operation

[Document Imaging Camera]

Lens	F=1.8 - 2.3, f=5.8 - 17.4mm
Filming area	Max 290 (mm) horizontal, 217 (mm) vertical (WIDE)
Zoom	Motor-driven (Manual)
Focus	Motor-driven (Manual)
Iris	Auto/Lever adjustment allowed
TV signal	PAL
Image element	1/3 inch CCD
Total picture elements	480,000
Resolution	Horizontal 450, vertical 420
Lighting	4W fluorescent light
Output Terminal	Pin jack PAL signal

[Accessories]

Wireless remote control	1
AA size battery (TLP510U/511U)	2
R6 size battery (TLP510E/511E)	2
Power cord	1
RGB cable	1
Adapter for Macintosh computers	1
Audio/video cable	1
Lens cover	1 (Only the document imaging camera model)
Pad	1
Infrared remote sensor unit.....	1
IBM/MAC cable (for infrared remote sensor unit)	1
MAC cable (for infrared remote sensor unit)	1

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